The

IRON AGE

CHESTNUT & 56th STS., PHILADELPHIA 39, PA.

A CHILTON PUBLICATION

THE IRON AGE

SEMI-ANNUAL INDEX

January - June 1957 Volume 179

The

IRON AGE

SEMI-ANNUAL INDEX

January - June 1957 Volume 179

CLASSIFIED INDEX

A

Abrasives
Abrasive Cutter Slices Through Tough Superalloys, by Curtis Cummings, Feb 21 p 96
Carbide Machine Ways Solve Abrasive Wear Problem, Mar 7 p 138
Diamond are Cheap in Machining Glass Cloth Laminates, by R. Thompson, May 23 p 134
Rubber Wheel Extends Abrasive Belt Life, Apr 4 p 118
Who Buys Them? Feb 14 p 84
Why Centerless Brushing Finishes Faster, by R. C. Sasena, Feb 21 p 91

Adhesives
Adhesive Bonding ups Oven Use, June 20 p 122
Bonding Film Replaces Rivets on Plane, Jan 10 p 90
Contact Adhesives up Bonding Speeds, Apr 4 p 128
No-Mix Epoxy Joins Metals Fast, by Bernard Gould, Feb 21 p 94
Refractory Cement Holds Materials, May 23 p 164
Teflon Presses on, Mar 7 p 162
Teflon Tapes Now to 3 16-in. Size, Apr 18 p 148

Air Compressors
Need Air? Rent It, Apr 18 p 139

Air Conditioning
How to Pay for Air Conditioning, Apr 11 p 78
Nation Warms up to Heat Pumps, by G. G. Carr, Apr 11 p 79

Air Conditioning Industry
Air Conditioners Get Ready for Hot Weather, Mar 7 p 94

Aircraft
Fasteners: Standards Vary, Jan 10 p 21

Aircraft, Engines and Parts
Jets Hold Spotlight, Jan 3 p 258
Skins Eliminate Many Small Fittings, May 23 p 149

Aircraft Industry
Air Force Cuts Only Skin Deep, by R. M. Stroupe, June 13 p 90
Air Force Plans Plane Cutbacks, May 23 p 85
Calling All Aircraft Suppliers, by R. R. Kay, Mar 28 p 97
Coast Braces for Jet Airliners, by R. R. Kay, June 27 p 85
How Overtime Loss Hits Aircraft, by R. R. Kay, Mar 16 p 91
Sales Gaining Altitude, Jan 3 p 220
Seattle Planemakers Stay Busy, by R. R. Kay, June 6 p 81
Will Guided Missiles Blast Aircraft Industry's Plans? May 30 p 51

Alloy Steels
Alloy is 99 pct Native, May 9 p 140
New Look at Temper Brittleness, by G. K. Bhat, Jan 24 p 73
New Start for Alloy Structurals, June 6 p 54

Alloys
Better Heat Resistant Alloys Seen as Vital, Mar 28 p 126
Brazing Alloy Eases Aluminum Joining, Mar 28 p 128
Castings Resist Wear, Impact, Temperature, Mar 14 p 162
Cast Titanium Gets Set for Commercial Use, Feb 7 p 102
Homecast Cuts Tooling Troubles, Mar 14 p 155
Hard-to-Braze Alloys Behave in Vacuum Setup, by W. G. Patton, Jan 24 p 80
How to Get More for Your Aluminum Dollar, Section I. Selection: Your Margin of Profit, Jan 31 p 58
New Material Reduces 80% of Magnets, Feb 14 p 154
Production up 700 pct for Allegheney Ludlum Superalloy, Feb 28 p 46
Special Alloy Features High Creep Strength, Mar 7 p 163
Strong Casting Alloy Resists Corrosion, Mar 21 p 127
Strong Chromium-Iron Alloy Resists High Temperatures, Jan 17 p 97
Superalloy Stands up to Highest Heats for Jet Aircraft Service, Apr 4 p 116
Superalloys Challenge Builders, by E. J. Egan, Jr., Mar 7 p 109

Aluminum
Aluminum Foil Raises Its Sights, June 27 p 78
Aluminum Fuel Cans Get Go Ahead, by K. W. Bennett, May 2 p 62
Aluminum Sales Stage Comeback, May 30 p 60
Bars to Detroit are Hawaiian Lure, by R. R. Kay, Feb 7 p 83
Chances Skyline, Feb 21 p 29
New Aluminum Alloy Features High Strength, Good Castability, Mar 14 p 131
How to Get More for Your Metalworking Dollar, Jan 31 p 57
Plan for New Markets, by Harry L. Smith, Jr., Jan 3 p 162

American Brake Shoe Co.
Double-Heat Treatment Strengthens Cast Wheels, by Larry DeBoer, Apr 18 p 116

American Chain and Cable Co.
Abrasive Cutter Slices Through Tough Superalloys, by Curtis Cummings, Feb 21 p 96

American Iron & Steel Institute
Official Steel Ingot Capacities by Iron Ore Districts, Jan 24 Insert p 18
Will Steel Sale Rally in 1957? By J. R. Delaney, May 30 p 56

American Optical Co.
Paint Parts First, Machine Later, by A. A. Junis, Apr 18 p 114

American Steel Foundries:
Steel Castings Shrug off Wear and Impact Abuse, by C. G. Mickelson, Feb 21 p 100

Amortization, see Finance, Taxation

Appliance Industry
Appliances Fight to Hold Gain, by G. J. McManus, May 2 p 58
Easy Living Hits New High, Jan 3 p 264
Appliance Sales Head Higher, by R. R. Kay, June 13 p 107

Arcwour Research Foundation
Rating System Simplifies Welding Electrode Selection, by O. T. Barnett, Apr 4 p 93

Atomic Energy
Atomic Power Goes "Portable," May 2 p 57
Big Job for Plastic Shell Model, Mar 7 p 85
Capital is Split on Atom Issue, Mar 21 p 81
How Industry Sees Atom Foul-Up, Mar 21 p 84
How to Tap the Atomic Energy Market, Mar 14 p 127
Nuclear Power Progress Lags, Mar 14 p 94
Press Stamps Forms Radioactive Materials, Mar 14 p 161
Reactors Are Portable, June 13 p 154
Test Atom Powerplant, Apr 18 p 146
Tiny Nuclear Battery, Jan 31 p 30

Automation
Aluminum Food Cans Get Go-Ahead, by K. W. Bennett, May 2 p 62
Automated Machine Drills, Rivets, Apr 4 p 120
Automatic Tube Output, June 6 p 120
Automotive Aluminum Can Line, Apr 25 p 65
Automatic Gage Setup Checks Dimensions, Assembly Operations, Mar 7 p 146
Automatic Press Rapidly Finishes Bronze Rings, Feb 14 p 157
Automation Breeds New "Watchdogs," May 23 p 139
Automation Must Pay its Way, by E. J. Egan, Jr., Apr 25 p 85
Automation Reaches a New High, by E. J. Egan, Jr., Apr 4 p 77
Built-In Checks Make Automation Complete, Apr 18 p 135
Canada Pipe's New Plant Features One Man Automatic Controls, Jan 24 p 86
Controls: Hitting the $1 Billion Jackpot, Jan 3 p 216
Conveyor "Think" its Way Through Interfloor Handling, Jan 10 p 74
Deep-Hole Drilling Converts to Automatic Operation, Apr 25 p 114
Disassembly Line, and it's Automated, June 20 p 117
Engineers Face up to New Challenges, by W. G. Patton, Feb 21 p 102
Giant Press Speeds Stamping Job, May 9 p 78
Integrated Setup Cleans and Stress Relieves Castings, by W. G. Patton, Feb 7 p 112
Line Turns Strip Into Tube Automatically, Apr 18 p 150
Machine Takes Cue from Tape, by E. J. Egan, Jr., May 2 p 77
Magnetic Tape Controls Positioning Table Motions, Feb 28 p 90
Metallic Rectifiers, Apr 11 p 139
New Line Plates Contoured Parts with Few Rejects, by Herbert Chase, Jan 10 p 64
New Plant Stresses Automatic Layout, May 9 p 112
Press Draws Heavy Torque Tube Flanges, Jan 10 p 69
Salt Bath Austempers With no Distortion, Apr 11 p 148
Shave and Gage Cluster Gears in Automated Setup, Apr 25 p 106
Should Job Shop Platers Automate? By Julian Nelkin, May 9 p 118
Skin Miller Contours Slabs Automatically, Jan 10 p 62
Unit "Quick Assembles" Small Jack Knife in Single Operation, Mar 7 p 150
Where Computers Fit in Metalworking, by J. J. Obrzut, Jan 17 p 71
Where Numerical Control Pays, by E. J. Egan, Jr., June 6 p 83
Works Two Parts at Same Time, June 20 p 116

Automation, see also Electronic Devices & Controls; Machine Tools

Automobiles & Trucks
Air Suspension Ready for Debut, by T. L. Curry, May 16 p 84
Big Design Changes Are Coming, Mar 7 p 100
Company Cars: Should You Lease or Buy? By T. M. Rohrs, Jan 17 p 86
Car Sales, Production July 15, by T. L. Curry, June 6 p 71
Engineers Face up to New Challenges, by W. G. Patton, Feb 21 p 102
Horsepower Max Go Soft Pedal, by T. L. Curry, May 23 p 106
How Thunderbird Scores on Road Test, by T. L. Curry, Jan 17 p 48
Magnesium Swings More Weight in Trucking, by G. K. Glass, Jan 17 p 78
Truck Designs Change, Apr 25 p 79
West Paces Rise in Car Designing, by R. R. Kay, May 23 p 113
What Industry is Doing About "Lemons"? by T. L. Curry, Jan 10 p 56

Automobiles & Trucks, Engines & Parts
Auto Part Makers Go After Diesel Market, by W. G. Patton May 16 p 107
Chrysler Makes Turbine Engine Headway, by T. L. Curry, Feb 21 p 68
Ford Describes Aluminum Frame, by T. L. Curry, May 2 p 68
Gas Turbine to Compete Soon, by T. L. Curry, June 13 p 100
Motors: Industrial Units Rev up Sales, Jan 3 p 244
Studebaker Gambles on Coming Automobiles May 14 p 172

Automotive Industry
American Motors' Fate is Set, by T. L. Curry, Apr 4 p 68
Auto Assembly Plants are Riding High, by R. R. Kay, Feb 14 p 99
Auto Sales Back Seasonal Trend, by T. L. Curry, Jan 31 p 36
Behind Chrysler's Labor Hassle, by T. L. Curry, Apr 18 p 84
Behind GM Loss: Price or Style? By T. L. Curry, Jan 24 p 92
Edsel Marketing Plans Take Shape, by T. L. Curry, Feb 14 p 92

Flared Fins Pace Auto Sales, by H. R. Neal, June 27 p 78
Foreign Car Sales Gain in U. S., by T. L. Carry, May 30 p 68
Framemakers Weigh in for Fight, Mar 14 p 164
Has American Motors Passed its Crisis? By T. L. Carry, Feb 7 p 76
Industrial Trucks: A Big Lift in '56, Jan 3 p 228
It Won't be Dull in Detroit in 1957, by T. L. Carry, Jan 3 p 182
S-P Gains in Comeback Drive, by T. L. Carry, Apr 25 p 76
The Next Five Years in Steel, by Thomas Dimond, Jan 3 p 158
What Happened to Spring Sales? May 2 p 71
What the Backroom Experts Say, by T. L. Carry, Apr 11 p 88
Why Auto Sales Are in a Slump, by T. L. Carry, May 9 p 84
Why Detroit has Spring Fever, Apr 11 p 87
Why Detroit Lives, Jan 17 p 37
Will GM Miss the Boat in '58? By H. R. Neal, June 20 p 68
Will Wolfson Take over AMC? Mar 21 p 76

B

Bars and Shapes
Draw, Polish Bar in One Machine, by J. H. Grove, Feb 28 p 88
Reliable Economic Barometers? Jan 17 p 30
Straightens Bars, May 23 p 162

Bearings
Match Drive and Bearing Seals to Service Conditions, by J. M. Bryant, June 13 p 136

Bethlehem Steel Co.
Aluminum-Coat Steel Parts for All-Weather Wear, by R. F. Joy, Feb 7 p 106

Bonding
Plastic Goes on Metal, Apr 18 p 147

Boron
Boron Solves "Hot Shortness" in Stainless Steels, by D. L. Loveless & F. K. Bloom, June 20 p 95

Brazing
Furnace Braze Honeycomb Panels for Better Bonding, Mar 14 p 137
Guide to High-Temperature Brazing, by W. Feduska, May 16 p 116
Hard-to-Braze Alloys Behave in Vacuum Setup, by W. G. Patton, Jan 24 p 80
Removes Air, then Adds Brazing Atmosphere, June 6 p 125
Rotary Drum Stores Pre-Mixed Flux, Feb 7 p 135
Tight Checks Hold ± 0.012-In. Tolerance on 37-In. Diam., Feb 7 p 130

C

Cables
General Cable Licks Old Problem, Apr 18 p 73
Mark "Hard-To-Label" Parts, Feb 14 p 127
Stretch-Cable Extends Power Tools' Reach, Mar 14 p 157

Canada
Canada Gets More Steel From Home, May 16 p 69
Canada Pipe: New Plant Features One Man Automatic Control
Metallurgical Delegates to Tour Canada, Apr 25 p 125
New Plant Features One Man Automatic Controls, Jan 24 p 46
Price and Production Data 1957, Jan 3 p 346, 347

Carborundum Corp.
How Much do Grinding Fluids Affect Wheel Performance? By J. A. Mueller, Part I Feb 28 p 79, Part II Mar 7 p 131

Casting, Die
Die Casters Gear for Big Year, Mar 14 p 91
Diecastings Cut Costs, May 30 p 95
Let Inserts Take the Rub in Die Castings, May 23 p 138
Method Saves Hours of Pattern Making Time, Jan 31 p 87
Vacuum Die Castings: Quality in, Porosity out, by E. J. Egan, Jr., May 9 p 107

Casting, Sand
Dextrose Binder Speeds Core Production, by C. F. Lourich, Apr 4 p 104
Improves Shell Mold Testing Method, June 27 p 114

Casting, Vacuum
Vacuum Die Castings, Quality in, Porosity out, by E. J. Egan, Jr., May 9 p 107

Castings, Ferrous
Blast Cleaning Makes Fast Work of Large Castings, June 27 p 101
Castings Machine Better with Water Coolants, by W. G. Patton, June 20 p 102
Double-Heat Treatment Strengthens Cast Wheels, by Larry Deboer, Apr 18 p 116
Foundries: Molding a Bright Future, Jan 3 p 214
Good Design Cuts Casting Costs, by J. W. Murphy, June 6 p 100
How Castings Hold Dimensional Stability, by F. C. Benz, May 16 p 126
Industrial "Dentist" Cleans 161,000-lb. Casting, Jan 17 p 98
Integrated Setup Cleans and Stress Relieves Castings, by W. G. Patton, Feb 7, p 112
Producer Casts Solid Disk, Cores Sides, Mar 21 p 132
Stainless Castings Cut Corrosion, May 23 p 161
Steel Foundries: RR Cars Pace Markets, Jan 3 p 226
Steel Castings Shrug off Wear and Impact Abuse, by C. G. Mickelson, Feb 21 p 100
Cast Twisted Piping Without Inserts, Mar 7 p 148

Castings, Nonferrous
Casts Many Aluminum Shapes Rapidly, Apr 18 p 142
Cast Titanium Gets Set for Commercial Use, Feb 7 p 102
"Crowning Touch" Emblems Die-cast of Zinc, Jan 10 p 88
Foundry Brainstorms Its Way Around Production Knots, by George Matuch, Jr., Feb 14 p 128
How to Get More for Your Aluminum Dollar, Jan 31 p 58

Caterpillar Tractor Co.
New Continuous-Feed Process Cuts Welding Costs, by L. Nielsen, Mar 7 p 127
Try Shell Molds for Low Volume Casting, by Samuel Freedman, Feb 28 p 84

Ceramics
Ceramics' Role in Jet Age Grows, May 16 p 74
New Ceramic Aims at Missiles, June 6 p 58

Chemicals
Keeps Starch Fresh, June 6 p 129

Clad Metals
Aluminum-Coat Steel Parts for All-Weather Wear, by R. F. Joy, Feb 7 p 106
General Cable Licks Old Problem, Apr 18 p 73
In-Plant Continuous Plating Line Silvers Wire Faster, Apr 11 p 122
Silver Clad Bronze, June 20 p 121

Cleaning and Finishing
Aluminum Chromizing: Strength plus Corrosion-Resistance, by G. R. Fulton & R. C. Reed, June 6 p 102
Aluminum-Coat Steel Parts for All-Weather Wear, by R. F. Joy, Feb 7 p 106
Barrel Finishing and Tumbling Industry Gets More Scientific, Mar 7 p 158
Blast Cleaning Makes Fast Work of Large Castings, June 27 p 101
Brightens Small Parts, May 2 p 125
Coat-ups Barrel Life, Apr 11 p 144
Deoxides Stainless, May 9 p 149
Dispersions Protect Special Alloys, Mar 7 p 160
Enameling: Gains Ground in New Fields, Jan 3 p 218
Finishes Parts Fast as Can Spray Them, May 2 p 119
Firm Rapidly Finishes Many Small Parts, May 9 p 138
Get More Protection from Galvanized Coatings, by A. T. Baldwin & W. H. McMullen, Mar 28 p 115
How to Get More for Your Aluminum Dollar, Section 2, Ways to Get the Most from Aluminum, Jan 31 p 67
How to Get More for Your Metalworking Dollar, Number 8 of a Series: Organic Finishing, Mar 21 p 107
In-Plant Continuous Plating Line Silvers Wire Faster, Apr 11 p 122
Keep Corrosion at Bay with Chromates, Apr 11 p 115
New Surface Treatment Substitutes for Tinplate, June 6 p 106
Optical Firm Professes Super-Finish Metals, Mar 14 p 174
Paint Parts First, Machine Later, by A. A. Janis, Apr 18 p 114
Paper Protects Plate, Mar 14 p 166
Phosphol in Tumbler Nils Discoloring, June 13 p 155
Steam-Cleans Parts, May 23 p 155
Two-End Brush Burrer Boosts Production, June 20 p 127
Vacuum-Cleans Plate, June 6 p 125
Vapor-Plates Aluminum to Magnesium, May 16 p 134
Versatile Ultrasonics Widens its Metalworking Range, by G. G. Carr, June 13 p 83
Washing Machine Completely Removes Chips from Castings, Feb 21 p 123
Why Centerless Brushing Finishes Faster, by R. C. Sasena, Feb 21 p 91
Why Not Tumble Big Parts? By W. E. Brandt, June 20 p 91

Cleaning & Finishing, see also Paints & Painting

Coal and Coke
Mine Equipment Sales Reviving, June 6 p 56
Setup Blends Coke Mix for Blast Furnaces, Mar 21 p 133

Coils
Tinplate Users Go for Coils, Mar 7 p 87

Columbium
Columbium May Better Gas Turbines, Mar 21 p 125

Communications
Communications Setup Speeds Tool Orders, June 6 p 132
Fax Speeds Orders, May 23 p 155

Computers, see Data Processing

Construction
Aluminum: Changes Skyline, Feb 21 p 59
Aluminum: Plan for New Markets, by Harry L. Smith, Jr., Jan 3 p 162
Construction Will Stay Healthy, by R. R. Kay, Apr 25 p 83
Fastening Setup Saves on Building Time, Mar 21 p 131
Hybrid Fastener Speeds Building Assembly, Apr 18 p 118
Likes Steel Floors, June 6 p 129
New Homes: Caught in Credit Squeeze, Jan 31 p 26
Plumbing: Rides with Construction, Jan 3 p 262
Stainless Steel Bulls Aid Bridge Building, Mar 14 p 166

Construction, see also Structural Steel; Welded Construction

Containers
Aluminum Food Cans Get Go-Ahead, by K. W. Bennett, May 2 p 62
Automatic Aluminium Can Line, Apr 25 p 67
Barrels: Sales in '56 up 4 pct, Expect Same in '57, Feb 21 p 60
Cans: Preserve Healthy Sales Level, Jan 3 p 240
Containers Keep Sales Stamina, June 13 p 92
Dairy Farmers Go Stainless, June 20 p 60
New Surface Treatment Substitutes for Tinplate, June 6 p 106
Tinplate Users Go for Coils, Mar 7 p 87

Containers, see also Packaging

Conventions
Metallurgical Delegates to Tour Canada, Apr 25 p 125
SAE Maps out Main Areas for Improving Production, May 9 p 117
Tool Engineers Invade Houston, by E. J. Egan, Jr., Mar 21 p 85

Conveyors, see Material Handling

Coolants
Castings Machine Better with Water Coolants, by W. G. Patton, June 20 p 102
Dress Your Grinding Wheels While They Work, May 2 p 97
Let Magnets Clean up Rolling Mill Coolants, by A. L. Wilson, Jr., Mar 7 p 132

Copper and Brass
Copper Makers Cool to Stockpiling, Mar 7 p 182
Foundry Brainstorms Its Way Around Production Knots, by George Matuch, Jr., Feb 14 p 128
Important Copper from Africa, Jan 17 p 114
Yankee Brass Mills Look Ahead, June 6 p 55
See also weekly page, "Nonferrous Markets."

Corn Products Sales Co.
Dextrose Binder Speeds Core Production, by C. F. Lourich, Apr 4 p 104

Corrosion
Aluminum-Chromizing: Strength plus Corrosion-Resistance, by G. R. Fulton & R. C. Reed, June 6 p 102
Aluminum-Coat Steel Parts for All-Weather Wear, by R. F. Joy, Feb 7 p 106
Castings Resist Wear, Impact, Temperature, Mar 14 p 162
How Plastics Curb Corrosion in Metal Processing, by J. H. Lux, Jan 17 p 80

Corrosion, see also Cleaning & Finishing

Curtiss-Wright Corp.
Grit Blasting: An Aid to Carburizing Quality, by A. J. Schwarzkopf, Jan 24 p 71

D

Data Processing
Card-Programmed Control Runs Routing Mill, Feb 7 p 127
Dry Printer Blows up Drawings from Film, June 13 p 130
Keep Production in Step with Simple System, Apr 18 p 122
Paperwork: Cut Down by Punched Cards, Jan 31 p 28
Smooth Production Flow with Flip-Card Records, Apr 4 p 106
Streamlined Program Can Trim Your Paperwork Load, May 2 p 54
Where Computers Fit in Metalworking, by J. J. Obrzut, Jan 17 p 74

Defense
Air Force Hunts More Money, by G. H. Baker, Mar 7 p 105
Budget: Defense Gives it a Boost, Jan 17 p 35
Builders Get Government View, by E. J. Egan, Jr., May 16 p 93
Defense Attacks Entrenched Supply Items, by G. H. Baker, Feb 21 p 73
Defense Budget is Tough to Cut, by G. H. Baker, Apr 11 p 93
Defense Budget Will Stand Pat, Mar 28 p 95
Could You Produce Weapons? By E. J. Egan, Jr., June 13 p 109

Military Budget Cut is Certain, by G. H. Baker, June 6 p 79
Military Differs on Tool Lease, by E. J. Egan, Jr., June 20 p 77
New Policy Aids Small Business, by G. H. Baker, June 13 p 105
ODM Prepares Tool Lease Code, by E. J. Egan, Jr., May 23 p 115
Preparing Industry for Atom Attack, May 16 p 71
Probe Aircraft Profit, Feb 28 p 37
Stockpile Spending Fades Away, Apr 4 p 66
Tool Rental Policy Set by ODM, by E. J. Egan, Jr., June 27 p 87
Will Guided Missiles Blast Aircraft Industry's Plans? May 30 p 51

Depreciation, see Taxation

Design
Casting Design Draws Buyer Interest, May 16 p 75
Design Engineering Proves Its Value, May 30 p 59
Ergonomics: A Human Guide to Machine Design, by E. C. Benedict, June 13 p 123
Good Design Cuts Casting Costs, by J. W. Murphy, June 6 p 100
Industrial Design Gives More Than a New Look, by Raymond Loewy, May 9 p 67

Dies
Stamping: What Type Dies to Use, by Federico Strasser, Feb 7 p 99
TV Set Trucks Die Layout Machine, June 27 p 57

Diversification
Auto Part Makers Go After Diverse Markets, by W. G. Patton, May 16 p 107

Dow Chemical Co.
Magnesium Swings More Weight in Trucking, by G. K. Glass, Jun 17 p 78

Drafting Equipment
Dry Printer Blows up Drawings from Film, June 13 p 130

E

Earthmoving Equipment
Construction Equipment: On the Road up, Jan 3 p 246
Roadbuilding: Equipment Makers Roll, Feb 7 p 62
Roadbuilding: Over $1 Billion in New Equipment Expected, Jan 31 p 21
Tractor Shovels are Mill Wheelhorses, May 9 p 145

Editorials
Armed Forces Day: Go See What You Pay For, May 9 p 7
Be-Kind-To-Businessmen Week, Feb 21 p 7
Bone up on Semantics, Apr 4 p 7
Budget Cutting Time: Everyone Must do His Part, May 30 p 7
Businessmen: Ten Commandments, Jan 3 p 7
Cleaner House Coming for Labor, Apr 18 p 7
Depreciation Hurdles Require a Lot of Homework, June 6 p 7
How High is up these Days? Jan 24 p 7
How Not to Cause a Panic, Feb 7 p 7
Let's Have a Look at Short-Term View, Mar 14 p 7
Long-Term Planning: You Can't Do Without It, Apr 11 p 7
Never-Ending Crises: They Will Be with Us Always, May 16 p 7
Red Chinese Trade: Who Will Gain By It? June 20 p 7
Security Anonymous: an Approach to 'Gimmicks'? Mar 7 p 7
That Depression Isn't Here Yet! Feb 14 p 7
The Bethlehem-Youngstown Merger, Jan 17 p 7
The 'Bygone' Era: How Far Gone? Mar 28 p 7
The Dangerous Axe: We Are Deep in It Now, June 13 p 7
The Last Six Months: They Began to Look Good, June 27 p 7
The Price of Survival Comes High! Feb 28 p 7
The Tables are Turned, a Chuckle is Due the Boss, May 2 p 7
There is Danger and Risk Ahead, Jan 31 p 7
There's no Sell Like the Hard Sell, Mar 21 p 7
What's the Outlook for Management's Health? May 23 p 7
You Must Still Beat the Bushes! Jan 10 p 7
Your Savings Bond is a Badge of Freedom, Apr 25 p 7

Education
Engineers: Colleges Fight Bottleneck, Feb 21 p 54
Ganging up on the Tech Shortage, Apr 4 p 59
Let Students Meet Your Firm, Apr 25 p 68
School Gets Welder, Mar 4 p 171

Electrical Equipment
Batteries: Competition Spurs Research, Jan 3 p 238
Discuss Rectifiers, Mar 21 p 128
Electroluminescent Lamps Use Metal, Apr 11 p 154
Material Makes Battery Containers Stronger, Mar 14 p 158
Metallic Rectifiers, Apr 11 p 139
Rectifiers Bid for More Metalworking Jobs, by Arthur Johnson, Jan 10 p 70
Seek Better Battery, May 30 p 90
Suppliers Thrive on Power Surge, Apr 4 p 58

Electrical Industry
Blairsville: Research with a Profit, Feb 28 p 38

Electrodes
Electricity Plays Many Roles in Welding, by A. C. Ward, Mar 14 p 140
High-Nickel Electrode Welds Most Dissimilar Metals, Feb 14 p 122
How to Avoid Problems with Dump Electrodes, by A. C. Ward, Feb 7 p 108
Rating System Simplifies Welding Electrode Selection, by O. T. Barnett, Apr 4 p 91
Vacuum Melt Furnace Licensed for Sale, June 6 p 53

Electrodes, see also Welding and Welding Machines

Electronic Devices and Controls
Blast Furnace Goes Push-Button, Mar 28 p 69
Conveyor 'Thinks' its Way Through Interplant Handling, Jan 10 p 72
Hitting the $1 Billion Jackpot, Jan 3 p 216
Jig Boring, Feb 28 p 162
Magnetic Tape Controls Positioning Table Motions, Feb 28 p 96
Wheel Dresser Hears Grinder on Hi-Fi, Mar 28 p 125

Electroplating
Alloy Plating: Which Way is it Headed? By F. A. Lowenheim & R. T. Gore, Apr 25 p 112
Chrome Plating Anodes Have Ripple-Round Design, Jan 10 p 91
Get More Protection from Galvanized Coatings, by A. T. Baldwin and W. H. McMullen, Mar 28 p 115
New Line Plates Contoured Parts with Few Rejects, by Herbert Chase, Jan 10 p 61
New Test Checks Electroplating Porosity, by F. Ogburn & M. Hilkert, Mar 7 p 123
Pre-Plating Bath Coats in one Pass, Apr 4 p 124
Selective Plating Gets Hard Areas, Apr 11 p 138
Should Job Shop Platers Automate? By Julian Nelkin, May 9 p 118

Engineers and Engineering
Boosts Technicians, Apr 11 p 141
Colleges Fight Bottleneck, Feb 21 p 54
Engineers Face up to New Challenges, by W. G. Patton, Feb 21 p 102
How Efficient are Engineers? Apr 4 p 56

Engineers & Engineering, see also Education

Extrusion
Pellet Extrusions Add Strength, Apr 11 p 142
Press Extrudes Small Carbon Steel Part, Mar 7 p 149
Spray Lube Setup Cuts Extrusion Costs, Apr 11 p 156

F

Fabrication
Brazed Tubing Bends to Many Product Needs, by W. G. Patton, Apr 25 p 102
Eight Basic Resistance Welds Cut Costs on Short Runs, by E. J. Egan, Jr., Apr 18 p 107
Fabricates Cabinets at Rapid Rate, May 23 p 142
Firms Plate Parts, then Fabricate, June 20 p 121
Forms, Welds Motor Parts in Seconds, June 27 p 112
How to Cut Down on Weld Metal Cracking, Jan 24 p 83
How to Get More for Your Metalworking Dollar, Number 9 of a Series: Stamping, May 30 p 97
Machinability Testing: Science or Fiction? By P. M. Unterweiser, Feb 28 p 75
Modern Swaging Packs Surprises as a Production Technique, by E. J. Egan, Jr., Mar 28 p 111
Redesign Adapts Part for Higher-Heat Service, Feb 21 p 99
Setup Brazes, Hardens, Apr 18 p 134
How to Get More for Your Aluminum Dollar, Jan 31 p 58

Fasteners
Bolts: How Tight is Tight? By H. Musnitsky, Mar 28 p 120
Holds Nuts Tight, May 9 p 149
How to Save on Cold Heading, June 13 p 159
Hybrid Fastener Speeds Building Assembly, Apr 18 p 118
New Fastener Stays Strong at High Temperatures, May 16 p 110
Over-Tightening a Bolt May not be Over-Tightening, Feb 7 p 136
Putting a Kick into Fasteners, Mar 21 p 68
Redesign Adapts Part for Higher-Heat Service, Feb 21 p 99
Standards Vary, Jan 10 p 21
Three Bolts do Work of Four, Apr 4 p 119
Two Big Years in a Row, Jan 3 p 222
Unique Fasteners Use Zinc Pads, June 27 p 116

Ferromanganese
New Process Puts Higher Profit in Low Grade Ores, Apr 4 p 102

Finance
Credit: How Your Banker Looks at 1957, by K. W. Bennett, Jan 24 p 38
Hard Money's New Champion, by G. H. Baker, June 20 p 73
Heat is off Consumer Credit, Apr 25 p 75
How Long Will Tight Money Policy Last? By G. H. Baker, Jan 31 p 41
Investments Widen their World, Nonferrous Firms Expand Portfolios, Apr 11 p 76
Make Your Money Earn its Keep, May 30 p 58
Wall Street Takes Another Look at Steel, by Walter Guttman, May 9 p 72
Why We Must Limit Fast Tax Write-Offs, Apr 18 p 67
Will U.S. Back Industry Loans, By N. R. Regenthal, June 20 p 58

Flame Cutting
Flame Cutter Works Long Steel Plate, May 16 p 135
Single Operator Removes 200-Ton Risers Easily, Feb 7 p 133

Foil
Wraps up Bigger Market, Jan 3 p 242

Food Industry
Stainless: Try it for Taste, Feb 28 p 43

Forecasting
Bars: Reliable Economic Barometers? Jan 17 p 40
Economy Shifts to Meet Change, Apr 4 p 67
Fair Weather, Say Business Barometers, by G. H. Baker, Jan 3 p 187
A Few Business Bumps Don't Hurt, May 23 p 95
Don't Bet on a Summer Slump, June 27 p 67
Forecast for Steel: Close to Record, Apr 11 p 82
How to Use Employment Figures, Apr 18 p 83
Industry Eases up on Capital Spending Throttle, Mar 14 p 87
Production: More for Less, Jan 24 p 43
Purchasing Agents Think Business Will be Good, June 6 p 51
Road Program Spurs Steel Demand, Apr 18 p 78
Second Half Outlook: Metalworking's Markets Tighten, June 20 p 51
What 'Moving Sideways' Means, May 30 p 67
Yankee Brass Mills Look Ahead, June 6 p 55

Foreign Trade
Canada Gets More Steel From Home, May 16 p 69
Export Curb Hits Scrap Prices, Mar 28 p 72
Foreign Car Sales Gain in U. S., by T. L. Curry, May 30 p 68
Imports Threaten Wire Market, Apr 25 p 65
Scrap Wartime Shortage Feared, Feb 7 p 66

Forging
Closed-Die Forges Big Crankshafts, Apr 25 p 129
Forged Wind Tunnel Disk Measures 210-In. Across, Feb 28 p 104
Modern Swaging Packs Surprises as a Production Technique, by E. J. Egan, Jr., Mar 28 p 111

Foundry
Cutbacks Hit Steel Founders, Mar 21 p 67
How to Cut Castings Cost, Mar 14 p 90
How to Troubleshoot on a New Shell Molding Line, by H. H. Mueller, Apr 11 p 124
Malleable Iron: Buyers Pouring it on, Jan 3 p 256
Modern Marketing Opens Doors to Bigger Foundry Sales, by T. M. Robin, Apr 25 p 79
New Pointers on CO_2 Molding, Apr 25 p 99
Price Squeeze is on, Jan 24 p 40
Salvage Defective Castings Using Epoxy Compounds, May 2 p 124
Steel Foundries: RR Cars Pave Market, Jan 3 p 226
Try Shell Molds for Low Volume Casting, by Samuel Freedman, Feb 28 p 84

Foundry, see also Castings

Fuel
New Unit Reforms Gas for Metal Processing, May 16 p 119

Furnaces
Builds Solar Furnace, Apr 4 p 122
Fewer Standards, More Sales, Jan 3 p 206
Flame's the Sun, Jan 31 p 25
No Solar-Heat Problem, May 16 p 136
Water Cools Molds for Titanium Casting, June 20 p 131

Furnaces, Blast
Blast Furnace Goes Push-Button, Mar 28 p 69
More Pig Iron Capacity Coming? By R. R. Kay, Mar 7 p 107
Operators Coax Iron from Busy Furnaces, Jan 24 p 104
Oxygen Boosts Furnace Output, June 13 p 91

Furnaces, Continuous
Continuous Heat Treating Boosts Output, Saves Floor Space, Mar 28 p 122

Furnaces, Electric
Gamma Rays Control Cold-Hearth Unit, May 9 p 134
How Close is Commercial H-Iron? By G. J. McManus, Apr 18 p 72
New Furnace Heats to 6000 F in Minutes, by P. M. Unterweiser, June 20 p 98

Furnaces, Heat Treating
How Long, How Fast to Heat Tool Steel, Part 1, Apr 4 p 97, Part 2 Apr 11 p 118

How Tubemakers Work Zircaloy, by J. S. Rodgers, May 23 p 131
Integrated Setup Cleans and Stress Relieves Castings, by W. G. Patton, Feb 7 p 112
Prevents Part Erosion, May 23 p 164
Roller-Hearth Furnace Handles 100 Ft. Extrusions, Feb 7 p 126
Unusual Roller Hearth Furnace Anneals Aluminum, Feb 21 p 124

Furnaces, Openhearth
Central Re'ining Station Boosts Openhearth Door Life, Mar 7 p 130
Industry Likes Them Bigger, by G. J. McManus, Jan 10 p 28
Installs Openhearth, Mar 28 p 129
Let Aluminized Suits Speed Openhearth Repairs, Jan 24 p 86
Material Improves Openhearth Heats, June 6 p 126
Pre-Build Them, Feb 21 p 62
Suspended Doors Speed Openhearth Repairs, Mar 21 p 129
Taps First Heat, Apr 18 p 142

Furnaces, Vacuum
Hard-to-Braze Alloys Behave in Vacuum Setup, by W. G. Patton, Jan 24 p 86
Vacuum Melt Furnace Licen ed for Sale, June 6 p 53

G

General Cable Corp.
General Cable Licks Old Problem, Apr 18 p 73

General Electric Co.
Electricity Plays Many Roles in Welding, by A. C. Ward, Mar 14 p 140
How to Avoid Problems with Damp Electrodes, by A. C. Ward, Feb 7 p 108
Weld Quality Rides with Steel Selection, by A. C. Ward, Feb 21 p 104

Government
Big Business Probes Begin, by N. R. Regelmbal, May 30 p 55
Budget: Politics Outweighs Economy, Feb 28 p 44
Business Next for Racket Probe, by G. H. Baker, May 23 p 111
Everybody Talks About it But Chances of a Budget Cut Are Slim, Mar 21 p 66
How to Deal with Washington, Apr 4 p 51
Negotiated Contracts Under Fire, by G. H. Baker, May 30 p 73
Rough Treatment Ahead for Ike's Budget, by G. H. Baker, Jan 24 p 57
Small Firms Sell Less to U. S., Mar 28 p 95
U. S. Will Sell its Magnesium Plant, May 9 p 172
Who's Running Domestic Policy? Mar 7 p 99
Will U. S. Back Industry Loans? By N. R. Regelmbal, June 20 p 58

Government, see also Defense; Legislation; Taxation

Grinding
How Much do Grinding Fluids Affect Wheel Performance? By J. A. Mueller, Part I Feb 28 p 79, Part II Mar 7 p 134

H

Hardness
Complex Heat Patterns Flame-Harden Part, Jan 17 p 83
Grit Blasting: An Aid to Carburizing Quality, by A. J. Schwarzkopf, Jan 24 p 71

Hawaii
A Big "Aloha" for Metalworking, by R. R. Kay, Jan 24 p 58
Bauxite Deposits are Hawaiian Lure, by R. R. Kay, Feb 7 p 83
Will Hawaii Get a Steel Mill? By R. R. Kay, Mar 14 p 111

Heating and Heating Equipment
Furnaces: '57 Looks Good, Feb 7 p 63
Nation Warms up to Heat Pumps, by G. G. Carr, Apr 11 p 79

Heat Treating
Carburize, Martemper Parts in Single-Line Setup, by C. E. Kopp, Feb 28 p 82
Complex Heat Patterns Flame-Harden Part, Jan 17 p 83
Continuous Heat Treating Boosts Output, Saves Floor Space, Mar 28 p 122
Forge Welding Joins Heat Treated Aluminum Alloys, Feb 28 p 86
Hard-to-Braze Alloys Behave in Vacuum Setup, by W. G. Patton, Jan 24 p 86
Ho'ds Precise Heat on Annealing Line, May 30 p 86
How Long, How Fast to Heat Tool Steel, Part 1, Apr. 4 p 97; Part 2, Apr 11 p 118
How to Get More for Your Aluminum Dollar, Section I, Selection: Your Margin to Profit, Jan 31 p 58
New Nitriding Process Uses Glow Discharge, by P. M. Unterweiser, May 2 p 91

I

Illumination
Sr90 Light Lasts Long, Apr 11 p 146

Industrial Expansion
Growth Takes no Vacation in Arizona, by R. R. Kay, Jan 17 p 55
India, Japan Gets Steel Loans, Israel Builds Openhearths, Jan 10 p 30
Industry Eases up on Capital Spending Throttle, Mar 14 p 87
New Tools Work an Advantage in South, by E. J. Egan, Jr., Feb 28 p 61
Northwest: How Much Expansion on Way? By R. R. Kay Jan 31 p 43
Scranton Plan Proves its Industry-Drawing Power, June 27 p 55
Suppliers Thrive on Power Surge, Apr 4 p 58
Warehouse Sales Reflect Area Growth, by R. R. Kay, Feb 28 p 59

Industrial Expansion, see also Individual Industries

Industrial Relations
Add Depth to Your Bargaining, May 16 p 76
Ergonomics: A Human Guide to Machine Design, by E. C. Beaudet, June 13 p 123
Executives: Rank Has its Privileges, Feb 28 p 39
Guide for Handling Welfare Plans, May 23 p 87
How to Build Good Labor Relations, May 23 p 97
Illness Costs Industry $2 Billion a Year, Apr 11 p 71
Personnel: Long-Range Trouble Ahead, Feb 21 p 56
Profit Sharing Pays its Way, May 23 p 88
Put Idea Money Where it Counts, Mar 7 p 88
Three-Factor Plan Simplifies Job Evaluation, by M. A. Barone, Apr 11 p 116
Westinghouse: Strike Hurt, But Helped, Feb 7 p 68

Industrial Relations, see also Labor

Inspection, see Testing and Inspection

Instruments
Annealing, Feb 21 p 116
Crystal Gazing Produces Better, Uniform Steel, Feb 14 p 145
Electrons Help Make Better Materials, May 9 p 142
Force Gage Tester Cuts Sample Size, May 23 p 143
New Gage Flashes Steel Thickness, June 13 p 87
Organic Finishing, Section 3, Keep Quality in Line by Control, Mar 21 p 117
Researchers Seeking Oil-Free Bearing, Mar 14 p 171
Set for Expansion, Jan 3 p 230
Where Betatron Inspection Fits in Metalworking, Apr 18 p 111
Insulates Assemblies, June 6 p 112
Insulates to 1200° F, May 2 p 126
Insulation Doesn't Pick up Moisture, June 6 p 110
Spun Block Resists High Temperatures, Mar 14 p 156

Insurance
Congress Plugs Flood Insurance Leaks, Apr 25 p 81
Flood Insurance, Feb 7 p 70

Inventories
Defense Attacks Entrenched Supply Items, by G. H. Baker, Feb 21 p 73
How to Cut Inventory Guesswork, by G. J. McManus, May 9 p 70
Parts Maker Fills His Stock, then Orders, May 2 p 116
Stability Returning to Steel Market, Jan 31 p 19
Steel Warehouses Sell Services and Low Total Cost, by G. F. Sullivan, May 16 p 67
Warehouses: Hunt Capital Goods Items, by G. G. Carr, Jan 24 p 44

Iron
How Close is Commercial H-Iron? By G. J. McManus, Apr 18 p 72

Israel
India, Japan Get Steel Loans, Israel Builds Openhearths, Jan 10 p 30

J

Japan
India, Japan Gets Steel Loans, Israel Builds Openhearths, Jan 10 p 30

Jigs, Fixtures
Carbide Jigs Resist Solder, Apr 4 p 106
Plumbing: Rides with Construction, Jan 3 p 262

Joining
No-Mix Epoxy Joins Metals Fast, by Bernard Gould, Feb 21 p 94

Joining, see also Adhesives

K

Kaiser Aluminum & Chemical Corp.
Research Pays off in Proporton, by R. R. Kay, May 2 p 75

L

Labor
Auto Labor Maps 1958 Contract Demands, by T. L. Carry, Feb 28 p 52
Behind Chrysler's Labor Hassle, by T. L. Carry, Apr 18 p 84
Brace for White Collar Drive, by George S. Odiorne, Apr 11 p 71
Brace Yourself for the "New" McDonald, by Tom Campbell, Feb 28 p 35
How to Build Your Skilled Labor Force, by P. J. Cathe', Feb 14 p 75
How Your Workforce is Changing, May 16 p 83
Labor Concentrates its Strength in Capital, Mar 21 p 62
Labor Hopes to Hold the Line, by G. H. Baker, Apr 25 p 81
Labor Political Strategy Shapes up, by G. H. Baker, Feb 28 p 57
Labor Takes Aim at McClellan, by G. H. Baker, May 16 p 89
Look for Steel Pickup in Fall, by Tom Campbell, May 2 p 54
McDonald: Preview of Things to Come, by J. B. Delaney, Jan 10 p 22
McDonald Seems Victorious, Feb 21 p 59
Organized Labor is on the Spot, by Tom Campbell, Apr 25 p 62
Steel Labor Goes After Small Firms, June 20 p 56
T-H Action is Coming But Slow, by G. H. Baker, Feb 14 p 97
UAW Boosts Skilled Workers, by R. D. Raddant, Apr 18 p 71
Unions Start Cleaning House, by G. H. Baker, Mar 14 p 109
What Follows Teamster Probe? By G. H. Baker, Apr 4 p 73
Workers: Age has Advantages, Feb 14 p 77

Labor, see also Industrial Relations

Labor, Productivity
Production: More for Less, Jan 24 p 43

Labor, Wages
Add Depth to Your Bargaining, May 16 p 76
Beware of Hidden Labor Costs, Mar 7 p 89
More Fringe for White Collar, Jan 10 p 23
New Wage Spiral is in the Making, by G. H. Baker, Jan 17 p 53
Pensions: How Funds Grow, Jan 10 p 25
Wages: Up 7c in Cleveland, Feb 28 p 37
Why Steel Prices Are Going up, by J. B. Delaney, May 9 p 75

Lead
Big Battery Trend Boosts Lead, May 2 p 146

Leasing, see Defense

Legislation
Big Business Probes Begin, by N. R. Regelmbal, May 30 p 55
Congress Drags Feet on Antitrust, Apr 11 p 75
DuPont Ruling Hits B-Y Merger, June 27 p 62
Good Faith Pricing Gets Freeze, by G. H. Baker, May 2 p 73
Justice Asks Quick Knockout, Apr 11 p 75
Labor Hopes to Hold the Line, by G. H. Baker, Apr 25 p 81
Look for More Anti-Trust Action, by G. H. Baker, Feb 7 p 81
T-H Action is Coming But Slow, by G. H. Baker, Feb 14 p 97
Who'll Probe Steelmakers First? Apr 25 p 64

Libraries
Geared to Serve Business, Jan 31 p 24

Lubrication
Central Lube: Use Grows, Jan 31 p 23
Colloid Lubricant Eases Machining of Magnesium, June 13 p 127
Force High Overhead Costs Down with Centralized Lubrication, by E. J. Egan, Jr., Apr 11 p 111
Grease is Versatile, June 6 p 112
How Much do Grinding Fluids Affect Wheel Performance? By J. A. Mueller, Part I Feb 28 p 79, Part II Mar 7 p 134
How to Pick Draw Lube, May 9 p 150
Match Drive and Bearing Seals to Service Conditions, by J. M. Bryant, June 13 p 136

M

Machinability
Machinability Testing: Science or Fiction? By P. M. Unterweiser, Feb 28 p 75
Put Machine Research to Work, by E. J. Egan, Jr., May 30 p 77
Why Leaded Forgings Favor Machinists, Mar 14 p 138

Machine Tool Industry
Bigger Orders on Way for Builders, by E. J. Egan, Jr., Jan 10 p 45
Builders Confident in Long-Range Outlook, by E. J. Egan, Jr., Jan 31 p 45
Could You Produce Weapons? By E. J. Egan, Jr., June 13 p 109
Detroit Poses a Blockbuster, by E. J. Egan, Jr., May 9 p 93
Machine Tool Pessimists are Scarce, by E. J. Egan, Jr., Feb 21 p 77
Military Differs on Tool Lease, by E. J. Egan, Jr., June 20 p 77
New Tools Work an Advantage in South, by E. J. Egan, Jr., Feb 28 p 61
ODM Prepares Tool Lease Code, by E. J. Egan, Jr., May 23 p 115

1957 Sales off to a Good Start, by E. J. Egan, Jr., Mar 14 p 113
Service Manuals Need Improving, by E. J. Egan, Jr., Feb 7 p 83

Machine Tools
Fast Honing Cycles Produce Flat, Parallel Surfaces, by W. G. Patton, May 23 p 136
Government Says 1% Ready, Mar 28 p 39
Magnetic Tape Controls Positioning Table Motions, Feb 28 p 99
Precision Finishing Machine Boosts Shop Versatility, May 2 p 106
Teams Forming, Cutoff Setups; 4pc Output, June 20 p 130
Teams: Two Machines, May 23 p 136
What's Best Replacing Method? By E. J. Egan, Jr., Apr 18 p 92

Machine Tools, Broaching
Metalworking Shop ups Bench Guide Life by Improving Methods, Mar 7 p 157

Machine Tools, Contour Sawing and Filing
New Miller Cuts Fast, Accurate Contours, by W. G. Patton, June 27 p 104

Machine Tools, Cutoff
Abrasive Cutter Slices Through Tough Superalloys, by Curtis Cummings, Feb 21 p 96
Moves Oxygen Cutter Where the Work is, June 27 p 145

Machine Tools, Drilling
Deep-Hole Drilling Converts to Automatic Operation, Apr 25 p 114
Drill Press Head Speeds Production, May 23 p 145
Drills 800 Precision Holes in Dieholder, May 23 p 134
Radial Units Rapidly Drill Rocket Jigs, Apr 18 p 150

Machine Tools, Gear Cutting and Finishing
Shave and Gage Cycles Gears in Automated Setup, Apr 25 p 106
Shaves Big Gears, June 20 p 122

Machine Tools, Grinding
Beeling Bars, Inserts Improve Part Finish, Apr 25 p 128
Free-Floating Grinder Put Smooth Surface on Wire, Feb 7 p 114
Giant Grinder Cuts Scrapping Costs, May 2 p 59
Grinder Resists Vibration, Heads Accurately Level, Feb 14 p 160
Safety "Why" of Abrasive Wheels, by E. J. Egan, Jr., Jan 24 p 69
Speeds Burr Making, Apr 18 p 144

Machine Tools, Lathes
Chuck Takes Big Work, June 13 p 161
Combine Operations to Cut Machining Time, Feb 7 p 111
Reduces Machine Tool Changeover Time, May 2 p 122
Tools-Lathe Team Cuts Working, Scrap Costs, Apr 4 p 123

Machine Tools, Milling
Automation Reaches a New High, by E. J. Egan, Jr., Apr 4 p 77
Huge 150-Ton Miller Works Complex Forms, Feb 14 p 147
Machine Takes Cue from Tape, by E. J. Egan, Jr., May 2 p 77
New Miller Cuts Fast, Accurate Contours, by W. G. Patton, June 27 p 104
Skin Miller Contours Slabs Automatically, Jan 10 p 63
Skins Eliminate Many Small Fittings, May 23 p 149
What Chips Really Mean to Carbide Cutters, by Horace Frommelt, Jan 10 p 59
Wooden Dummy Speeds Cutter Development, Apr 11 p 150

Machine Tools, Planers
Double Cutting Gives Planers a Boost, by T. M. Rohan, June 20 p 109

Machine Tools, see also Automation

Machinery
A Delayed-Action Boom, Jan 3 p 208
Draw, Polish Bar in One Machine, by J. H. Glose, Feb 28 p 88
Let Inserts Take the Rub in Die Castings, May 23 p 138
Machines, When Are They Obsolete? Jan 10 p 26
Paper Making Machinery: Rolling Along, Jan 3 p 264
Portable Unit Cuts Scrap, Apr 18 p 136
Textile Machinery: Old Mills Must Buy, Jan 3 p 252
Unit Stretches Plate, May 9 p 144
Washing Machine Completely Removes Chips from Castings, Feb 21 p 123

Machinery Agricultural
Buying Mood Hits Farm Belt, Mar 14 p 93
Farmer May be Headed for Town, by K. W. Bennett, June 27 p 60
Tractors: Hard Pull for Fewer Sales, Jan 3 p 234

Machinery, Presses
Baldies Big Press, Apr 11 p 150
Firm Cuts Forming Costs with 1000-Ton Press, Feb 14 p 152
Firm Meshes Powerful Gearset for Press, Mar 28 p 127
General Cable Licks Old Problem, Apr 18 p 73
Giant Press Extrudes Magnesium to New Forms, June 20 p 104
Giant Press Speeds Stamping Job, May 9 p 78
Hydraulic Press Brake Forms Pipe, Jan 24 p 162
Press Draws Heavy Torque Tube Flanges, Jan 10 p 69
Presses Form Three Intricately Shaped Parts, Feb 21 p 122
Press Stamps, Forms Radioactive Materials, Mar 14 p 161
When is an Underdrive Press a Good Buy? By E. J. Egan, Jr., Feb 14 p 124

Machinery, see also Earthmoving Equipment

Machining
Acid Etch-Milling is in Full-Scale Production, by T. M. Rohan, May 16 p 114
Chipless Machining Gains Support, by E. J. Egan, Jr., Jan 17 p 57
Combine Operations to Cut Machining Time, Feb 7 p 111
Cuts Working Time, Apr 18 p 151
Cutting Tools: Great Promise for New Materials, by R. T. Hook, Mar 14 p 134
Diamonds are Cheap in Machining Glass Cloth Laminates, by R. Thompson, May 23 p 134
Double Cutting Gives Planers a Boost, by T. M. Rohan, June 20, p 109
Drills by Ultrasonics, May 9 p 142
Easy-to-Make Reamer Speeds Sizing, May 2 p 102
Electrolytic Process Grinds End Mills, Mar 21 p 132
How Much do Grinding Fluids Affect Wheel Performance? By J. A. Mueller, Part I Feb 28 p 79, Part II Mar 7 p 134
How to Get More for Your Aluminum Dollar, Section 2, Ways to Get the Most from Aluminum, Jan 31 p 67
Lists Stainless Facts, May 9 p 145
Machine Parts Without Chips, Apr 18 p 132
Plenty of Room for Machining Education, by E. J. Egan, Jr., Feb 14 p 161
Steam Treat Tools for Longer Shop Life, by T. L. Spangler & M. E. Lackey, June 27 p 106
Super-Alloys Challenge Builders, by E. J. Egan, Jr., Mar 7 p 109
Technique Grinds Parts to Within 0.00016 In., Feb 21 p 118
Uses Unusual Turning in "Skinning" Setup, June 6 p 131
What Chips Really Mean to Carbide Cutters, by Horace Frommelt, Jan 10 p 59
Why Leaded Forgings Favor Machinists, Mar 14 p 138

Magnesium
Colloid Lubricant Eases Machining of Magnesium, June 13 p 127
Giant Press Extrudes Magnesium to New Forms, June 20 p 104
Heat Treat Won't Distort New Magnesium Alloy Sheet, Feb 14 p 145
Magnesium Swings More Weight in Trucking, by G. K. Glaza, Jan 17 p 78
Pellet Extrusions Add Strength, Apr 11 p 142
Two Magnesium Finishers Provide Corrosion Resistance, Feb 7 p 142
U. S. Will Sells its Magnesium Plant, May 9 p 172

Magnets
Iron Dust Has Power, Jan 10 p 27
Magnet Grates Remove Iron Particles, Mar 21 p 125

Maintenance
Central Relining Station Boosts Openhearth Door Life, Mar 7 p 150
Chrome Coated Bench Tools Last Longer, Mar 14 p 132
Cut Costs by Planning, Jan 31 p 24
How to Straighten Large Shafts in an Emergency, by A. G. Mann & R. B. Wiser, May 2 p 104
Just Any Area Won't Do for Making Small Parts, Jan 24 p 84
Let Aluminized Suits Speed Openhearth Repairs, Jan 24 p 86
Let Magnets Clean up Rolling Mill Coolants, by A. L. Wilson, Jr., Mar 7 p 182
Metalworking Shop ups Bench Guide Life by Improving Methods, Mar 7 p 157
Once-Over Keeps Rollers Working, June 20 p 128
Organic Finishing, Section 2, Ways to Get Better Finishes Economically, Mar 21 p 112
Rubber Wheel Extends Abrasive Belt Life, Apr 4 p 118
Steam Treat Tools for Longer Shop Life, by T. L. Spangler & M. E. Lackey, June 27 p 106

Management
Diversification: How to Make it Work, Feb 14 p 80
Executives: Mad Market? Feb 21 p 50
Executives: Rank Has its Privileges, Feb 28 p 39
Follow Economic Indicators to Growing Markets, Mar 14 p 98
Get Full Use from Research Dollars, May 2 p 56
How to Cut Inventory Guesswork, by G. J. McManus, May 9 p 76
How to Deal with Washington, Apr 4 p 51
Illness Costs Industry 82 Billion a Year, Apr 11 p 71
Keep Production in Step with Simple System, Apr 18 p 122
Libraries: Geared to Serve Business, Jan 31 p 24
Look out for a Price Squeeze, Mar 14 p 163
Make Your Money Earn its Keep, May 30 p 58
Management Game Trains Execs, May 16 p 73
Marketing: How to Pick a Consultant, by Eugene R. Mapel, Feb. 7 p 59
Operations Research Serves All, May 2 p 56
Plan Ahead to Make Research Effort Pay Dividends, by C. Guy Suits, Mar 7 p 83
Retired Brass Back in Harness, Consulting Service Aids Small Firms, by R. R. Kay, Mar 21 p 83
Should You Make it or Buy it? By G. J. McManus, June 13 p 86
Smooth Production Flow with Flip-Card Records, Apr 4 p 100
A Streamlined Program Can Trim Your Paperwork Load, May 2 p 54
Survey Report to Management, No. 6 of a Series: How to Pick Executives, June 27 p 69
Three-Factor Plan Simplifies Job Evaluation, by M. A. Barone, Apr 11 p 116
To Cut Costs: Take a Close Look at Scrap Control, Number 4 of a Series, Mar 28 p 81
Yardstick for Executive Rating, May 16 p 72

Marketing
Follow Economic Indicators to Growing Markets, Mar 14 p 98
Here's Seller's Guide to the Far-west, by R. R. Kay, Feb 21 p 75
How to Pick a Consultant, by Eugene R. Mapel, Feb 7 p 59
Markets for Metalworking, Jan 3 p 203
Modern Marketing Opens Doors To Bigger Foundry Sales, by T. M. Rohan, Apr 25 p 59
Research Pays off in Proportion, by R. R. Kay, May 2 p 75
Steel Warehouses Sell Services and Low Total Cost, by G. F. Sullivan, May 16 p 67
Teamwork: Sells New Products, Feb 14 p 83

Marketing, see also Forecasting

Material Handling
Air Conveyors Breeze Through Tough Handling Chores, by E. J. Egan, Jr., Feb 14 p 115
Tough Handling Chores, by E. J. Egan, Jr., Feb 14 p 115
Atom Vessel, Jan 24 p 100
Belt Moves Ore, May 30 p 90
Belts Carry Much Ore, Apr 18 p 153
Conveyor "Thinks" its Way Through Interfloor Handling, Jan 10 p 72
Conveyors: Moving into New Markets, Jan 3 p 210
Experts Suggest Only In-Standard Pallets, Feb 21 p 117
Fork Lift Setup Lifts Big Load, Apr 18 p 139
Grab Buckets Handle Hot Slag, Apr 18 p 134
Handles Packages, May 16 p 134
How to Plan Materials Handling Equipment Purchases, May 9 p 74
In-The-Floor Conveyor Moves Through Heat, Cold, Feb 21 p 124
Magnetic Pipe Rolls Cut Maintenance, May 14 p 168
Material Handlers Develop Ingenious Lift Truck Devices, Mar 7 p 158
Move Different Levels, Mar 14 p 158
One Man Moves Parts, Works Two Blasters, June 20 p 124
One-Piece Conveyor to Carry Ore, Mar 14 p 159
Radio Aids Handling, June 13 p 158
Setup Solves Clumsy Handling Problem, May 16 p 137
Six Jacks Lift 200-Ton Machine with Accuracy, Feb 14 p 159
Slings Move Big Load with Ease, Safety, May 23 p 143
Special Carriages Move Stampings, Mar 21 p 124
Split-Personality Vehicle Travels on or off Rails, Feb 14 p 142
Studies Wire Belt, Mar 21 p 129
Three-Dimensional Handling Saves Space, Speeds Orders, by O. Sumner Haverman, Jr., June 27 p 102
Three-In-One Rail Car Hauls Hure Loads, Apr 18 p 140
Trucks Team with Cranes to Provide Flexible Handling, by H. R. Tinnel, May 9 p 110

Materials
Borazon: Hard as a Diamond, Feb 14 p 78
Cadmium Brightener, June 20 p 126
Coats Cores, Molds, May 2 p 127
Cutting Tools: Great Promise for New Materials, by R. T. Hook, Mar 14 p 134
New Ceramic Aims at Missiles, June 6 p 58
Plastic Panels Feature Built-In Metal Mesh, Feb 7 p 116
Plastics: A Big Lift from Aircraft, Feb 14 p 82
Platinum Bonded Tungsten Carbide Resists Abrasion, Jan 10 p 88
Removes Rust, Scale, May 9 p 150
Resin Patches Metal, June 13 p 152
Slits Narrow Tapes, June 13 p 153
White Floors Popular, May 2 p 120

Marking Equipment
Mark "Hard-To-Label" Parts, Feb 14 p 127

Mergers, see Legislation

Metallizing
Zinc Metallizing Halts Corrosion, May 9 p 150

Metallurgy
Fiber Metals Widely Vary in Porosity, May 23 p 162

How Long, How Fast to Heat Tool Steel, Part 1, Apr 4 p 97, Part 2 Apr 11 p 118
Interface Between Coat and Base Metal is Vital, Feb. 14 p 149
Metal "Whiskers," Jan 17 p 96
New Look at Temper Brittleness, by G. K. Bhat, Jan 24 p 73
New Nitriding Process Uses Glow Discharge, by P. M. Unterweiser, May 2 p 91
New Way to Cut Sulfur Content, by H. W. McQuaid, June 27 p 59
Stress Analysis Test Eliminates Plastic Model of Structures, Mar 7 p 151

Metal & Thermit Corp.:
Alloy Plating: Which Way is it Headed? By F. A. Lowenheim & R. T. Gore, Apr 25 p 112

Miniaturization
Just Any Area Won't Do for Making Small Parts, Jan 24 p 84

Mining Industry
Investments Widen Their World, Nonferrous Firms Expand Portfolios, Apr 11 p 76
Mine Equipment Sales Reviving, June 6 p 56

Minnesota Mining & Manufacturing Co.
Can Sealants Fill Your Fabricating Needs? By R. K. Hunks, Jan 17 p 84

Missiles, see Aircraft; Aircraft Industry

Molding, Molds
How to Troubleshoot on a New Shell Molding Line, by H. H. Meeker, Apr 11 p 124
New Pointers on CO_2 Molding, Apr 25 p 99

Motors, see Automotive Industry, Engines and Parts; Power

N

National Bureau of Standards:
New Test Checks Electroplating Porosity, by F. Ogburn & M. Hilbert, Mar 7 p 123

Nickel
More Nickel is on the Way, Mar 21 p 61
Nickel Output Hike Tied to U. S. Aid, June 20 p 59

Nonferrous Metals
Investments Widen their World, Nonferrous Firms Expand Portfolios, Apr 11 p 76
Lead-Zinc Output Headed up, Apr 25 p 146
Powdered Metal is Ready to Roll, by K. W. Bennett, May 9 p 76
Price and Production Data 1957, Jan 3 p 343
Vapor-Plates Aluminum to Magnesium, May 16 p 134

Nonferrous Metals, see also individual metals

Nonferrous Metals, Bending & Forming
Acid Etch-Milling is in Full-Scale Production, by T. M. Rohan, May 16 p 114
Force Welding Joins Heat Treated Aluminum Alloys, Feb 28 p 86
How to Get More for Your Aluminum Dollar, Jan 31 p 58
How Tubemakers Work Zirconloy, by J. S. Rodgers, May 23 p 131
Resistance-Heat Titanium for Better Brake-Forming, Feb 14 p 130
Welded Tubing Rolls from Forming Mill at High Speed, June 20 p 106

Nonferrous Metallurgy
Study Corrosion, Apr 4 p 117

O

Oil Field Equipment
Drilling Demands Mount, by G. J. McManus, Jan 17 p 38
Refinery Uses Almost All Alloy Piping, Feb 7 p 143
Rigs to Riches, Jan 3 p 224
There's Some Hope for Drillers, Apr 4 p 54
Weld Methods Improve, Apr 18 p 148

Ore, Ferrous
Ore Industry Sees a Big Year, Apr 18 p 74
Steep Rock Mine: Ready by '60, Apr 11 p 80
Team up on Iron Ore Reduction Process, May 2 p 121

Ore Penefication
Ore Industry Sees a Big Year, Apr 18 p 74
New Process Puts Higher Profit in Low Grade Ores, Apr 4 p 102

Outboard Motors
Outboards Sales Top $200 Million, Mar 28 p 76

Oxygen
"Cyclosteel": Steel Direct from Ore, by G. K. Bhat, May 23 p 129
First License out for Stora Kaldo, Jan 17 p 42
Linde Strike Bites Industry Reliance on Oxygen, Feb 7 p 67
Oxygen Boosts Furnace Output, June 13 p 91

P

Packaging
Aluminum Foil, Feb 7 p 121
Any-Size Box Cuts Packing Time, June 13 p 156
Camera New Tool for Shippers, Feb 21 p 69
Coat Strips off, June 6 p 112
Drums and Pails: Roll up Bigger Sales, Jan 3 p 250
Guards Polished Metal, May 2 p 156
Hexagonal Boxes Ease Handling Problems, May 16 p 140
Label: Recognition for J & L, Feb 14 p 81
Metal Foil: Wrests up Bigger Market, Jan 3 p 242
Meats, Like Cereals, Stay Fresh in Plastic Bags, Jan 31 p 86
Shipping Cost Savings Come in Planned Packaging, Apr 18 p 76
Wire Reel Throwaways, May 23 p 158

Packaging, see also Containers

Paints and Painting
Air Force Studies Paint, Lacquer, Mar 7 p 161
Pigment Protects Iron, Steel from Corrosion, Apr 11 p 141
Organic Finishing, Section 1, Good Finishes Begin with a System, Mar 21 p 108
Vinyl Resin Base Paints Resist Time, Rolling Waters, Feb 7 p 141

Paper Industry
Paper Making Machinery: Rolling Along, Jan 3 p 264

Photographic Equipment
Picture Making Technique Uses Oven Baked Plastic, Jan 17 p 95

Pickling
New Method Speeds Analysis for Salt in Pickling Bath, June 6 p 165

Pipe, Tubes
Brazed Tubing Bends to Many Product Needs, by W. G. Patton, Apr 25 p 102
Canada Pipe: New Plant Features One Man Automatic Controls, Jan 24 p 46
Line Turns Strip Into Tube Automatically, Apr 18 p 150
Mills Uses New Setup to Weld Big Pipe, Mar 28 p 124
More Plastic Coated, Feb 7 p 67
New Standards Square up Steel Tubing Cuts, Apr 25 p 111
Nils Pipe Leaks, May 9 p 141
Refinery Uses Almost All Alloy Piping, Feb 7 p 143
Resistance Welds Bypass Oxide Barrier, by J. J. Oberzut, June 6 p 97
Stainless Fittings Halt Pipe Leaks, May 23 p 151
Welded Tubing Rolls from Forming Mill at High Speed, June 20 p 106
Weld Pipelines Faster by Automatic Process, May 2 p 94

Plant Equipment
Collectors Control Airborne Dust, June 27 p 110
Company Cars: Should You Lease or Buy? By T. M. Rohan, Jan 17 p 36
Condition Water to Cut Phosphating Costs, May 2 p 99
Fire Protection Pays its Own Way, by C. J. Hunn, May 16 p111
Flows Smoothly, May 9 p 138
Force High Overhead Costs Down with Centralized Lubrication, by E. J. Egan, Jr., Apr 11 p 111
Got a Worthless Tank? Put a New One Inside, May 9 p 148
How Plastics Curb Corrosion in Metal Processing, by J. H. Lux, Jan 17 p 86
How to Control Plant Noise, by G. G. Carr, Feb 21 p 74
How to Pay for Air Conditioning, Apr 11 p 78
New Unit Reforms Gas for Metal Processing, Mar 16 p 119
Shock Doesn't Shatter Plastic Windows, Apr 25 p 126
Show Intercom Setup Cuts Travel Time, May 16 p 132

Plant Equipment, see also Communication; Maintenance

Plant Layout
Carburize, Martemper Parts in Single-Line Setup, by C. E. Kopp, Feb 28 p 82
Keep Your Plant Modernization Within Your Budget, by W. G. Patton, Apr 25 p 108
Modernizations: How Much Makes it Pay? By W. Ceyzon, June 13 p 128
A New Plant Stresses Automatic Layout, May 9 p 112

Plant Location
Aluminum Mills Get New Neighbors, May 9 p 93

Plastics
How Plastics Curb Corrosion in Metal Processing, by J. H. Lux, Jan 17 p 86
Plastics Sales Heading Skyward, by R. R. Kay, Apr 4 p 75
Plastic Makers Look at Problems, Apr 4 p 57
Selvage Defective Castings Using Epoxy Compounds, May 2 p 124
Withstands Chemicals, May 2 p 124

Plates, Sheets, Strip
Coiled Plate: Loosen a Tight Market, Feb 28 p 42
Plastic Surface Plates, June 6 p 126
Setup Readily Checks Individual Sheets, May 2 p 118
Stainless Steel Plate Welds-In [illegible] By Jan 17 p 98
Mercury of '54 Haunts Producers [illegible] By K. W. Bennett, Apr 11 p 77
Steel Mills Ride Market Shift, Apr 18 p 75

Pollution Air
Scrapyards Cut down Smoke with Incinerator, Cut Cost, by P. C. Houston, May 9 p 114

Pollution Water
Ends Pollution Puzzle, May 2 p 120

Porcelain Enamel
Enamel Dries Extra Fast, Apr 4 p 126

Powdered Metals
Boosts Metal Powder, June 6 p 111
Magnets: Iron Dust Has Power, Jan 10 p 27
Powdered Metal is Ready to Roll, by K. W. Bennett, May 9 p 76
Wrought Powder, Feb 7 p 142

Power
Combustion Engines: At full Throttle, Jan 3 p 236
Power Lack May Slow Northwest, by R. R. Kay, June 20 p 75
Rectifiers Bid for More Metalworking Jobs, by Arthur Johnson, Jan 10 p 70

Presswork
How to Get More for Your Metalworking Dollar, Stamping, May 30 p 97
Stamping: What Type Dies to Use, by Federico Strasser, Feb 7 p 99

Presswork, see also Machinery, Presses

Prices
Are Steel Users Hedging Against Higher Prices? Mar 21 p 59
Look out for a Price Squeeze, Mar 14 p 103
Price and Production Data 1957, Jan 3 p 335
Steel Prices: On the "Up" Escalator, Feb 21 p 57
Titanium: Are Prices Coming in Reach? By G. J. McManus, Feb 28 p 76
What Steel Buyers Can Expect in a Changing Market, by G. J. McManus, May 23 p 83
Who'll Probe Steelmakers First? Apr 25 p 61
Why Steel Prices Are Going up, by J. B. Delaney, May 9 p 75

Punch Cards, see Data Processing

Purchasing
Are Steel Users Hedging Against Higher Prices? Mar 21 p 59
Defense Attacks Entrenched Supply Items, by G. H. Baker, Feb 21 p 73
How to Deal with Washington, Apr 4 p 51
How to Get More for Your Metalworking Dollar, Number 7 of a Series, Aluminum, Jan 31 p 67
How to Get More for Your Metalworking Dollar, Number 8 of a Series: Organic Finishing, Mar 21 p 107
How to Plan Materials Handling Equipment Purchases, May 9 p 74
Negotiated Contracts Under Fire, by G. H. Baker, May 30 p 73
Purchasing Agents Think Business Will be Good, June 6 p 51
What Steel Buyers Can Expect in a Changing Market, by G. J. McManus, May 23 p 83

Q

Quality Control
Plant Management Survey Spotlights Inspection Mar 28 p 82

R

Railroad Equipment
Double Heat Treatment Strengthens Cast Wheels, by Larry DeBoer, Apr 18 p 118
Freight Car Builders Hammer at Huge Order Backlogs, Mar 7 p 96
Locomotives: There's Cautious Optimism, Jan 3 p 248
Railroads Study New Car Program, by R. D. Raddant, May 23 p 86
Railroads Whittle at Backlogs, May 2 p 67
Steel Foundries: RR Cars Pace Market, Jan 3 p 226

Raw Materials
Industry Leaders See Markets Holding up, Jan 3 p 276

Refractories
Magnetic Grates Boost Refractory Output, Apr 4 p 118
Refractory Treatment Cuts Dust Problem, May 9 p 146
Ups Crucible Life, May 23 p 165

Riveting
Automated Machine Drills, Rivets, Apr 4 p 120
How to Get More for Your Aluminum Dollar, Section 2, Ways to Get the Most from Aluminum, Jan 31 p 67
Propose Rivet Standard, May 2 p 118
Vacuum Holds Drill, Air Feeds it, June 6 p 124

Roads
Construction Equipment: On the Road up, Jan 3 p 246
Program in Second Gear, by R. M. Stroupe, Jan 17 p 34
Road Program Spurs Steel Demand, Apr 18 p 78
Wire Fabric Makers Gamble on Bigger Demand, Mar 28 p 71

Roads, see also Earthmoving Equipment

Rubber
Rubber is Transparent, Resists High Heat, May 9 p 141

S

Safety
Emphasize the "Human Element" for Better Inspection, by E. J. Egan, Jr., Jan 24 p 78
Fights Metal Fires, May 2 p 122
Fire Protection Pays its Own Way, by C. J. Hura, May 16 p 111
Horsepower May Get Soft Pedal, by T. L. Carry, May 23 p 166
How to Control Plant Noise, by G. G. Carr, Feb 21 p 31
How to Sell Safety to Workers, Mar 21 p 67
Intricate Steel Pipe Setup Fights Fires, May 16 p 141
Just Any Area Won't Do for Making Small Parts, Jan 24 p 84
Let Aluminized Suits Speed Openhearth Repairs, Jan 24 p 86
Operator Watches Arc Furnace in Viewer, Apr 4 p 120
Plodding toward Federal Safety Laws, Jan 17 p 48
Refractory Treatment Cuts Dust Problem, May 9 p 146
Safety "Why" of Abrasive Wheels, by E. J. Egan, Jr., Jan 24 p 60
Scrap: Air Pollution nil; Unit Burns 150 Cars a Day, Jan 10 p 92
Scrubbers Halt Smoke, Dust Dirt Emission, Apr 18 p 145
Shop-Made Rope Tester Makes Plant Safer, June 20 p 119
When is an Underdrive Press a Good Buy? By E. J. Egan, Jr., Feb 14 p 124

Science and Research
Blairsville: Research with a Profit, Feb 28 p 38
Plan Ahead to Make Research Effort Pay Dividends, by C. Guy Suits, Mar 7 p 83

Scrap
Behind Scrap's Unexpected Rise, by G. J. McManus, June 20 p 55
Export Curb Hits Scrap Prices, Mar 28 p 72
Exports Will Continue at High Levels, Feb 28 p 41
It's Facing up to a Problem, by J. R. Delaney, Jan 24 p 39
Scrapyards Cut down Smoke with Incinerator Controls, by P. C. Houston, May 9 p 114
Wartime Shortage Feared, Feb 7 p 66

Screw Machine Industry
Sides Spiraling, Jan 3 p 254

Sealants
Can Sealers Fill Your Fabricating Needs? By R. K. Humke, Jan 17 p 84
Caulk, Seal, Join Materials with Synthetic Compound, Apr 4 p 126
Holds Nuts Tight, May 9 p 149
Match Drive and Bearing Seals to Service Conditions, by J. M. Bryant, June 13 p 136

Shipbuilding
Great Lakes Carrier Uses Stainless Propellers, Feb 14 p 161
Shipbuilders Ride Crest of Big New Building Wave, Mar 28 p 67
West Bids for A-Boat, Mar 7 p 107

Shipping, see Packaging, Transportation

Soldering
Aluminum Solder Needs no Flux, Apr 4 p 127
Carbide Jigs Resist Solder, Apr 4 p 106
Solders Hard to Join Aluminum Alloys, June 6 p 111
Soldering Job Used to Take 12 Hours; Now, Only one, Jan 24 p 101

Springs
Bouncing Toward Sales Gain, Jan 3 p 232

Stainless Steel
Boron Solves "Hot Shortness" in Stainless Steels, by D. L. Loveless & F. K. Bloom, June 20 p 95
Dairy Farmers Go Stainless, June 20 p 60
For High-Temperature Strength: Stainless or Tool Steel? By E. A. Loria, June 13 p 132
Stainless Pickle Rack Endures Sulphuric, Mar 21 p 126
Stainless Set Record Despite Strike, Mar 14 p 93
Stainless Steel Weldments Show Few Failures, Feb 28 p 103

Standards
Experts Suggest Only 10 Standard Pallets, Feb 21 p 117

Steel, Bending and Forming
Bench Boosts Output of Cold Drawn Tube, Feb 28 p 105
Brazed Tubing Bends to Many Product Needs, by W. G. Patton, Apr 25 p 102
Weld Quality Rides with Steel Selection, by A. C. Ward, Feb 21 p 104

Steel Capacity
The Next Five Years in Steel, by Thomas Dimond, Jan 3 p 158
Official Steel Ingot Capacities by Iron Age Districts, Jan 24 Insert p 48

Steel Industry
1956 Was One of Steel's Best, Mar 28 p 78
Builders Face '56 Users, March 14 p 92
Earnings: Strong 4th Quarter Helped, Feb 7 p 65
Financial Analysis, 1956-1955, Mar 28 p 78
Forecast for Steel: Close to Record, Apr 11 p 82
Green River: Can it Make a Comeback? By J. B. Delaney, Feb 7 p 64

Steel Industry
Kaiser Will Double Capacity, by R. R. Kay, Apr 18 p 90
Look for Steel Pickup in Fall, by Tom Campbell, May 2 p 54
Memory of '34 Haunts Producers of Cold-Rolled Strip, by K. W. Bennett, Apr 11 p 77
More Pig Iron Capacity Coming? By R. R. Kay, Mar 7 p 107
National Steel Head Steps Down, May 2 p 54
The Next Five Years in Steel, by Thomas Dimond, Jan 3 p 158
Price and Production Data 1957, Jan 3 p 335
Republic Steel Sees Decade of Growth, May 30 p 62
Sharon: What's Next Move? Feb 14 p 86
Stability Returning to Steel Market, Jan 31 p 19
Steel Expansion Moving into High, by R. R. Kay, Jan 10 p 43
Steel Forges Ahead Without Fast-Tax, by J. B. Delaney, Jan 17 p 31
Steel Mills Ride Market Shift, Apr 18 p 75
Steel Steps up Sales Push, by R. R. Kay, May 30 p 75
Wall Street Takes Another Look at Steel, by Walter Gutman, May 9 p 72
What's Ahead for Steel Users, by Tom Campbell, Jan 10 p 24
Will Steel Sales Rally in 1957? By J. B. Delaney, May 30 p 56

Steel, Treatment
Carburize, Martemper Parts in Single-Line Setup, by C. E. Kopp, Feb 28 p 82
Grit Blasting: An Aid to Carburizing Quality, by A. J. Schwarzkopf, Jan 24 p 71

New Method Speeds Analysis for Salt in Pickling Bath, June 6 p 105
New Nitriding Process Uses Glow Discharge, by P. M. Unterweiser, May 2 p 91
New Surface Treatment Substitutes for Tinplate, June 6 p 106

Steelmaking
Crystal Gazing Produces Better, Uniform Steel, Feb 14 p 145
"Cyclosteel": Steel Direct from Ore, by G. K. Bhat, May 23 p 129
New Process Makes Rolled Steel Directly from Pig Iron, June 27 p 97
Operators Coax Iron from Busy Furnaces, Jan 24 p 104

Stockpiling
Stockpile Spending Fades Away, Apr 4 p 60

Structural Steel
Fabricators Forecast Record Year, Apr 25 p 70
Market Stability Coming, Jan 24 p 42
New Start for Alloy Structurals, June 6 p 54
Road Program Spurs Steel Demand, Apr 18 p 78
Signs of Easing in Structurals, by G. J. McManus, Apr 11 p 74
You Can Weld Structurals Without Distortion, by C. W. Lytton, Mar 28 p 118

T

Taxation
Builders Get Government View, by E. J. Egan, Jr., May 16 p 93
Fast Tax Write-Off Hopes Are Dim, Apr 4 p 164
Fight Looms on Fast Write-Offs, by G. H. Baker, May 9 p 89
Industry Overpaying, Feb 14 p 79
It's Time to Act on Bulletin F, by G. H. Baker, June 27 p 83
Let's Make Sense in Our Depreciation Policies, by Joel Barlow, June 6 p 65
Machines: When Are They Obsolete? Jan 10 p 26
Small Business Gets Bipartisan Pat, by G. H. Baker, Jan 10 p 41
Steel Forges Ahead Without Fast-Tax, by J. B. Delaney, Jan 17 p 31
Trade Groups Face Tax Probe, by G. H. Baker, Apr 18 p 89
Why We Must Limit Fast Tax Write-Offs, Apr 18 p 67

Television
Closed-Circuit TV Unit Reduces Test Time, Mar 7 p 152
Operator Watches Arc Furnace in Viewer, Apr 4 p 120
Plant Goes to Visitors, May 16 p 137
TV Set Tracks Die Layout Machine, June 27 p 57
TV Setup Allows Accurate Positioning of Turbines, Feb 7 p 137

Testing and Inspection
Automatic Gage Setup Checks Dimensions, Assembly Operations, Mar 7 p 156
Automation Breeds New "Watchdogs," May 23 p 159
Cover Quality Control, May 23 p 145
Diagnosis Motors, May 23 p 157
Electrons Help Make Better Materials, May 9 p 142
Emphasize the "Human Element" for Better Inspection, by E. J. Egan, Jr., Jan 24 p 78
Force Gage Tester Cuts Sample Size, May 23 p 143
Improves Shell Mold Testing Method, June 27 p 114
Machinability Testing: Science or Fiction? By P. M. Unterweiser, Feb 28 p 75
Magnetic Particle Test Checks Welds, June 27 p 117
Microdrill Aids Probers of Alloy Inclusions, Feb 7 p 128
Modern Electronics Team-up with Old-Fashioned Screwdriver, Feb 14 p 157
New Test Checks Electroplating Porosity, by F. Ogburn & M. Hilkeit, Mar 7 p 123
Organic Finishing, Section 3, Keep Quality in Line by Control, Mar 21 p 117
Plant Management Survey Spotlights Inspection, Mar 28 p 82
Researchers Find One Part in a Billion, June 13 p 159
Spots Pinholes, May 23 p 160
Steel Supplier Uses Spark Testing Method, Feb 14 p 163
To Cut Costs: Take a Close Look at Scrap Control, Mar 28 p 81
Testers Abuse Units, June 6 p 129
Tight Checks Hold ± 0.012-In. Tolerance on 37-In. Diam., Feb 7 p 130
What Industry is Doing About "Lemons," by T. L. Carry, Jan 10 p 36
Where Betatron Inspection Fits in Metalworking, Apr 18 p 111
Where New X-Ray Techniques Solve Old Shop Problems, Feb 14 p 119
X-Ray Diffraction Widely Used for Metals Analysis, Feb 7 p 134

Tin
New Surface Treatment Substitutes for Tinplate, June 6 p 106
What's Next for Texas City? Jan 10 p 114
ITA Has no Metal, Feb 14 p 83

Titanium
Are Prices Coming in Reach? By G. J. McManus, Feb 28 p 40
Cast Titanium Gets Set for Commercial Use, Feb 7 p 102
Free-Floating Grinders Put Smooth Surface on Wire, Feb 7 p 114
Kennecott is Making Titanium Bigger Part of its Business, Mar 7 p 92
Resistance-Heat Titanium for Better Brake-Forming, Feb 14 p 130
Setup Descales Parts, Doesn't Damage Them, Mar 14 p 173
Sodium Process Extracts Titanium in Commercial Tonnages, by John Milton, May 9 p 120
Welds Ti in Bag, June 20, p 125
Will Lower Prices Help Titanium? By K. W. Bennett, June 13 p 88

Tool Steels
For High-Temperature Strength: Stainless or Tool Steel? By E. A. Loria, June 13 p 132
How Long, How Fast to Heat Tool Steel, Part 1, Apr 4 p 97, Part 2, Apr 11 p 118
Specialty Tool Steel Broadens Hardening Range, Feb 28 p 103

Tools
Alloy on Tool Tip Boosts its Life, May 16 p 139
Chrome Coated Bench Tools Last Longer, Mar 14 p 132
Electron Unit Drills Steel, Diamonds, June 13 p 153
Old Tool: New Twist, June 20 p 125
Vacuum Holds Drill, Air Feeds it, June 6 p 124

Tools, Cutting
Carbide Machine Ways Solve Abrasive Wear Problem, Mar 7 p 138
Carbide Throw-Away Cutting Tools, Jan 31 p 86
Center Punches Have Tungsten Carbide Tips, Feb 14 p 159
Cut-Off Machine Eliminates Waste Turret Lathe Time, Feb 14 p 162
Cuts Tool Costs, Apr 11 p 152
Cutters Face Piece Without Burrs, May 9 p 136
Cutting Tool Advice is Needed, by E. J. Egan, Jr., Apr 11 p 97
Dress Your Grinding Wheels While They Work, May 2 p 97
Easy-to-Make Reamer Speeds Sizing, May 2 p 102

Great Promise for New Materials, by R. T. Hook, Mar 14 p 134
Laps Carbide Inserts, June 13 p 158
Plenty of Room for Machining Education, by E. J. Egan, Jr., Feb 14 p 101
Reground Cutters Stay, May 16 p 138
Small Shear Replaces Dies on Short Runs, by T. M. Rohan, Mar 7 p 136
Steam Treat Tools for Longer Shop Life, by F. L. Spangler & M. E. Lackey, June 27 p 106

Tap's, Powder
Putting a Kick into Fasteners, Mar 21 p 68

Training Programs
Executives: Mad Market? Feb 21 p 55
Ganging up on the Tech Shortage, Apr 4 p 59
How to Build Your Skilled Labor Force, by P. J. Cathey, Feb 14 p 75
Let Students Meet Your Firm, Apr 25 p 68
Management Game Trains Execs, May 16 p 73
Survey Report to Management, No. 6 of a Series: How to Pick Executives, June 27 p 69

Transmission
Gears: Synchronized for a Record Year, Jan 3 p 260
Integrated Setup Cleans and Stress Relieves Castings, by W. G. Patton, Feb 7 p 112

Transportation
Barge Shipping Rides Boom Currents, by G. J. McManus, Jan 24 p 35
Stainless: Try it for Taste, Feb 28 p 43
You Can do Business with Air Freight, by K. W. Bennett, Jan 10 p 19

Tungsten
Battle Looms over Tungsten, May 16 p 70
Filament Lasts Longer, Mar 7 p 163
What's Next for Texas City? Jan 10 p 114

Turbines
Columbium May Better Gas Turbines, Mar 21 p 125
Free Piston Engine Uses Few Parts, Apr 25 p 124
Gas Turbine to Compete Soon, by T. L. Carry, June 13 p 100
Giant Hammer Forges Big Turbine Blades, Feb 14 p 162

U

Ultrasonics
Versatile Ultrasonics Widens its Metalworking Range, by G. G. Carr, June 13 p 83

V

Vacuum Metallurgy
Inclusions Hold Key to Vacuum Melts, May 23 p 153

Vacuum Metallurgy, see also Furnaces, Vacuum

W

Warner & Swasey Co.:
Cutting Tools: Great Promise for New Materials, by R. T. Hook, Mar 14 p 134
Ergonomics, by E. C. Beaudet, June 13 p 123

Wastes
Scrap: Air Pollution nil; Unit Burns 150 Cars a Day, Jan 10 p 92
Scrapyards Cut down Smoke with Incinerator Controls, by P. C. Houston, May 9 p 114

Water Treatment
Condition Water to Cut Phosphating Costs, May 2 p 99

Welded Construction
Welding with CO_2 Speeds a Tunnel Project, May 16 p 122
You Can Weld Structurals Without Distortion, by C. W. Lytton, Mar 28 p 118

Welding and Welding Machines
A Bead on Record Sales, Jan 3 p 212
CO_2 Welding Reduces Material Costs, June 13 p 159
Electricity Plays Many Roles in Welding, by A. C. Ward, Mar 14 p 140
End Welds Alloy Studs, June 13 p 154
Forge Welding Joins Heat Treated Aluminum Alloys, Feb 28 p 86
How Heat and Time Affect Welding, by A. C. Ward, Jan 17 p 75
How to Cut Down on Weld Metal Cracking, Jan 24 p 83
Rating System Simplifies Welding Electrode Selection, by O. T. Barnett, Apr 4 p 91
Tired of Pulling Welder Around? May 9 p 140
Weld Quality Rides with Steel Selection, by A. C. Ward, Feb 21 p 104
Welds Nuclear Vessel, Apr 18 p 149

Welding and Welding Machines, Arc
CO_2 Setup Plug-Welds Thousands of Holes, Feb 7 p 125
Cuts Weld Preparation and Finishing, May 23 p 152
Get Twofold Weld Protection with New Process, Apr 18 p 120
Hard-Surfacing Saves Pieces from Scrap, June 13 p 151
High-Nickel Electrode Welds Most Dissimilar Metals, Feb 14 p 122
How to Avoid Problems with Dump Electrodes, by A. C. Ward, Feb 7 p 108
New Continuous-Feed Process Cuts Welding Costs, by L. Nielsen, Mar 7 p 127
New Processes, Fixtures Boost Output, Cut Labor Cost, Feb 21 p 121
Quick Weld Job Cuts Production Delay, June 6 p 128
Weld Pipelines Faster by Automatic Process, May 2 p 94

Welding & Welding Machines, Resistance
Eight Basic Resistance Welds Cut Costs on Short Runs, by E. J. Egan, Jr., Apr 18 p 107
How to Get More for Your Aluminum Dollar, Jan 31 p 67
Resistance Welds Bypass Oxide Barrier, by J. J. Obrzut, June 6 p 97

Westinghouse Electric Corp.:
Guide to High-Temperature Brazing, by W. Feduska, May 16 p 116

Wire
Free-Floating Grinders Put Smooth Surface on Wire, Feb 7 p 114
Imports Threaten Wire Market, Apr 25 p 65
In-Plant Continuous Plating Line Silvers Wire Faster, Apr 11 p 122
High Strength Steel Has Heavy Copper Cost, Feb 7 p 146
Non-Metallic Coated Wire Solves Spring Tolerance Problem, Feb 14 p 152
Wire Fabric Makers Gamble on Bigger Demand, Mar 28 p 71
Wire Market Feels New Strength, Mar 7 p 86

X

X-Ray
Buick Uses Fast X-Ray, June 6 p 133
X-Ray Analyzer Reduces Long Job to Minutes, Mar 7 p 149
X-Ray Checks Vessels, Apr 18 p 147
X-Rays Small Items, June 6 p 126
X-Ray Tests, Inspects in Lab or Field, Apr 11 p 146
Where New X-Ray Techniques Solve Old Shop Problems, Feb 14 p 119

Z

Zinc
Zinc Industry Heats a Warming, May 2 p 60

Zirconium
How Tubemakers Work Zircaloy, by J. S. Rodgers, May 23 p 131
Research Begins on Welding Zirconium Alloy, Jan 17 p 98

AUTHOR INDEX

JANUARY - JUNE 1957

A

B

Baker, G. H.:
Air Force Hunts More Money, Mar 7 p 105
Business Next for Rocket Probe, May 23 p 111
Defense Attacks Entrenched Supply Items, Feb 21 p 73
Defense Budget is Tough to Cut, Apr 11 p 93
Fair Weather, Say Business Barometers, Jan 3 p 187
Fight Looms On Fast Write-Offs, May 9 p 89
Good Faith Pricing Gets Freeze, May 2 p 73
Hard Money's New Champion, June 20 p 73
How Long Will Tight Money Policy Last, Jan 31 p 41
It's Time to Act on Bulletin T, June 27 p 83
Labor Hopes to Hold the Line, Apr 25 p 81
Labor Political Strategy Shines up, Feb 28 p 57
Labor Takes Aim at McClellan, May 16 p 89
Look for more Anti-Trust Action, Feb 7 p 81
Military Budget Cut is Certain, June 6 p 79
Negotiated Contracts Under Fire, May 30 p 73
New Policy Aids Small Business, June 13 p 165
A New Wage Spiral is in the Making, Jan 17 p 53
Rough Treatment Ahead for Ike's Budget, Jan 24 p 57
Small Business Gets Bipartisan Pat, Jan 10 p 41
T-H Action is Coming But Slow, Feb 14 p 97
Trade Groups Face Tax Probe, Apr 18 p 89
Unions Start Cranking House, Mar 14 p 109
What Follows Teamster Probe? Apr 4 p 73

Baldwin, A. T. & W. H. McMullen:
Get More Protection from Galvanized Coatings, Mar 28 p 115

Barlow, Joel:
Let's Make Sense in our Depreciation Policies, June 6 p 65

Barnett, O. T.:
Rating System Simplifies Welding Electrode Selection, Apr 4 p 91

Barone, M. A.:
Three-Factor Plan Simplifies Job Evaluation, Apr 11 p 116

Beaudet, E. C.:
Ergonomics: A Human Guide to Machine Design, June 13 p 123

Bennett, K. W.:
Aluminum Food Cans Get Go-Ahead, May 2 p 62
Credit: How Your Banker Looks at 1957, Jan 24 p 38
Farmer May be Headed for Town, June 27 p 60
Memory of '54 Haunts Producers of Cold-Rolled Strip, Apr 11 p 77
Powdered Metal is Ready to Roll, May 9 p 76
Will Lower Prices Help Titanium? June 13 p 88
You Can do Business with Air Freight, Jan 10 p 19

Benz, F. C.:
How Castings Hold Dimensional Stability, May 16 p 126

Bhat, G. K.:
"Cyclosteel": Steel Direct from Ore, May 23 p 129
New Look at Temper Brittleness, Jan 24 p 73

Bloom, F. K. & D. L. Loveless:
Boron Solves "Hot Shortness" in Stainless Steels, June 20 p 95

Brandt, W. E:
Why Not Tumble Big Parts? June 20 p 91

Bryant, J. M.:
Match Drive and Bearing Seals to Service Conditions, June 13 p 136

C

Campbell, Tom:
Bruce Yourself for the "New" McDonnell, Feb 28 p 35
Editorials, see Subject Index
Look for Steel Pickup in Fall, May 2 p 54
Organized Labor is on the Spot, Apr 25 p 62
What's Ahead for Steel Users, Jan 10 p 24

Carr, G. G.:
How to Control Plant Noise, Feb 21 p 54
Nation Warms up to Heat Pumps, Apr 11 p 79
Versatile Ultrasonics Widens its Metalworking Range, June 13 p 83
Watchdogs: Hunt Capital Goods Items, Jan 24 p 44

Carry, T. L.:
Air Suspension Ready for Debut, May 16 p 84
American Motors' Fate is Set, Apr 4 p 68
Auto Labor Maps 1958 Contract Demands, Feb 28 p 52
Auto Sales Buck Seasonal Trend, Jan 31 p 36
Behind Chrysler's Labor Hassle, Apr 18 p 84
Behind GM Layoff: Price or Style? Jan 24 p 52
Chrysler Makes Turbine Engine Headway, Feb 21 p 68
Edsel Marketing Plans Take Shape, Feb 14 p 92
Edsel Starts Producing July 15, June 6 p 74
Ford Develops Aluminum Frame, May 2 p 68
Foreign Car Sales Gain in U. S., May 30 p 68
Gas Turbine to Compete Soon, June 13 p 100
Has American Motors Passed its Crisis? Feb 7 p 76
Horsepower May Get Soft Pedal, May 23 p 106
How Thunderbird Scores on Road Test, Jan 17 p 48
It Won't be Dull in Detroit in 1957, Jan 3 p 182
S-P Gains in Comeback Drive, Apr 25 p 76
What Industry is Doing About "Lemons," Jan 10 p 56
Why Auto Sales Are in a Slump, May 9 p 84

Cathey, P. J.:
How to Build Your Skilled Labor Force, Feb 14 p 75

Chase, Herbert:
New Line Plates Contoured Parts With Few Rejects, Jan 10 p 64

Cummings, Curtis:
Abrasive Cutter Slices Through Tough Superalloys, Feb 21 p 96

Czygan, W.:
Modernization: How Much Makes it Pay? June 13 p 128

D

DeBoer, Larry:
Double Heat Treatment Strengthens Cast Wheels, Apr 18 p 118

Delaney, J. B.:
Green River: Can it Make a Comeback? Feb 7 p 64
McDonald: Preview of Things to Come, Jan 10 p 22
Scrap: It's Facing up to a Problem, Jan 24 p 39
Steel Forges Ahead Without Fast-Tax, Jan 17 p 31
Will Steel Sales Rally in 1957? May 30 p 56
Why Steel Prices Are Going up, May 9 p 75

Dimond, Thomas:
The Next Five Years in Steel, Jan 3 p 158

E

Egan, Jr., E. J.:
Air Conveyors Breeze Through Tough Handling Chores, Feb 14 p 115
Another $1 Billion Year for Builders, Jan 3 p 193
Automation Must Pay its Way, Apr 25 p 85
Automation Reaches a New High, Apr 4 p 77
Bigger Orders on Way for Builders, Jan 10 p 45
Builders Confident in Long-Range Outlook, Jan 31 p 45
Builders Get Government View, May 16 p 93
Chipless Machining Gains Support, Jan 17 p 57
Could You Produce Weapons? June 13 p 109
Cutting Tool Advice is Needed, Apr 11 p 97
Detroit Poses a Blockbuster, May 9 p 93
Eight Basic Resistance Welds Cut Costs on Short Runs, Apr 18 p 107
Emphasize the "Human Element" for Better Inspection, Jan 24 p 78
Force High Overhead Costs Down with Centralized Lubrication, Apr 11 p 111
Machine Takes Cue from Tape, May 2 p 77
Machine Tool Pessimists are Scarce, Feb 21 p 77
Military Differs on Tool Lease, June 20 p 77
Modern Swaging Packs Surprises as a Production Technique, Mar 28 p 111
New Tools Work an Advantage in South, Feb 28 p 61
1957 Sales off to a Good Start, Mar 14 p 113
ODM Prepares Tool Lease Code, May 23 p 115
Plenty of Room for Machining Education, Feb 14 p 101
Put Machine Research to Work, May 30 p 77
Safety "Why" of Abrasive Wheels, Jan 24 p 60
Service Manuals Need Improving, Feb 7 p 85
Super-Alloys Challenge Builders, Mar 7 p 109
Tool Engineers Invade Houston, Mar 21 p 85
Tool Rental Policy Set by ODM, June 27 p 87
Vacuum Die Castings: Quality in, Porosity out, May 9 p 107
What's Best Replacing Method? Apr 18 p 92
When is an Underdrive Press a Good Buy? Feb 14 p 124
Where Numerical Control Pays, June 6 p 83

F

Falquet, H. R.:
Trucks Team with Cranes to Provide Flexible Handling, May 9 p 110

Feduska, W.:
Guide to High-Temperature Brazing, May 16 p 116

Freedman, Samuel:
Try Shell Molds for Low Volume Casting, Feb 28 p 84

Frommelt, Horace:
What Chips Really Mean to Carbide Cutters, Jan 10 p 59

Fulton, G. R. & R. C. Reed:
Aluminum Chromizing: Strength Corrosion-Resistance, June 6 p 102

G

Glaza, G. K.:
Magnesium Swings More Weight in Trucking, Jan 17 p 78

Glose, J. H.:
Draw, Polish Bar in One Machine, Feb 28 p 88

Gore, R. T. & F. A. Lowenheim:
Alloy Plating: Which Way is it Headed? Apr 25 p 112

Gould, Bernard:
No-Mix Epoxy Joins Metals Fast, Feb 21 p 94

Gutman, Walter:
Wall Street Takes Another Look at Steel, May 9 p 72

H

Hagerman, Jr., O. Summer:
Three Dimensional Handling Saves Space, Speeds Orders, June 27 p 102

Hilker', M. & F. Ogburn:
New Test Checks Electroplating Porosity, Mar 7 p 123

Houston, P. C.:
Scrapyards Cut down Smoke with Incinerator Controls, May 9 p 114

Humke, R. K.:
Can Sealers Fill Your Fabricating Needs? Jan 17 p 84

Hura, C. J.:
Fire Protection Pays its Own Way, May 16 p 111

Hook, R. T.:
Cutting Tools: Great Promise for New Materials, Mar 14 p 134

J

Janis, A. A.:
Paint Parts First, Machine Later, Apr 18 p 114

Johnson, Arthur:
Roethlein Bid for More Metalworking Jobs, Jan 10 p 70

Joy, R. F.:
Aluminum-Cast Steel Parts for All-Weather Wear, Feb 7 p 106

K

kay, R.R.:
Appliance Sales Head Higher, June 13 p 167
Auto Assembly Plants are Riding High, Feb 14 p 99
Bauxite Deposits are Hawaiian Lure, Feb 7 p 83
Calling All Aircraft Suppliers, Mar 28 p 97
Coast Brakes for Jet Airliners, June 27 p 85
Construction Will Stay Healthy, Apr 25 p 83
Forecast: An Even Better Year in '57, Jan 3 p 191
Growth Takes to Vine Cop in Arizona, Jan 17 p 55
Hawaii: A Big "Aloha" for Metalworking, Jan 24 p 78
Here's Seller's Guide to the Farwest, Feb 21 p 77
How Overtime Law Hits Aircraft, May 16 p 91
Kaiser Will Double Capacity, Apr 18 p 90
Metal Users Get Progress Report, Apr 11 p 95
More Pig Iron Capacity Coming? Mar 7 p 107
Northwest: How Much Expansion on Way? Jan 31 p 43
Plastics Sales Heading Skyward, Apr 4 p 75
Power Lack May Slow Nuclear Lead, June 20 p 77
Research Pays off in Properties, May 2 p 75
Retired Brass Back in Harness, Consulting Service Aids Small Firms, Mar 21 p 83
Seattle Planemakers Stay Busy, June 6 p 81
Seller's Roadmap is Handy Aid, May 9 p 89
Steel Expansion Moving into High, Jan 10 p 43
Steel Steps up Sales Push, May 30 p 75
Warehouse Sales Reflect Area Growth, Feb 28 p 59
West Paves Rose Cut Designing, May 23 p 113
Will Hawaii Get a Steel Mill? Mar 14 p 111

Kopp, C. E.
Carburize, Martemper Parts in Single-Line Setup, Feb 28 p 82

L

Lackey, M. E. & F. L. Spangler:
Steam Treat Tools for Longer Shop Life, June 27 p 106

Loewy, Raymond:
Industrial Design Gives More Than a New Look, May 9 p 67

Lorta, E. A.:
For High-Temperature Strength: Stainless or Tool Steel? June 13 p 132

Lourich, C. F.:
Dextrose Binder Speeds Core Production, Apr 4 p 104

Loveless, D. L. & F. K. Bloom:
Boron Solves "Hot Shortness" in Stainless Steels, June 20 p 95

Lowenheim, F. A. & R. T. Gore:
Alloy Plating: Which Way is it Headed? Apr 25 p 112

Lux, J. H.:
How Plastics Curb Corrosion in Metal Processing, Jan 17 p 80
Lytton, C. W.:
You Can Weld Structurals Without Distortion, Mar 28 p 118

M

Macler, H. H.:
How to Troubleshoot on a New Shell Molding Line, Apr 11 p 124

Mann, A. C. & B. B. Winer:
How to Straighten Large Shafts in an Emergency, May 2 p 104

Mapel, Eugene B.:
Marketing: How to Pick a Consultant, Feb 7 p 59

Matuch, Jr., George:
Foundry Brainstorms Its Way Around Production Knots, Feb 14 p 128

Mickelson, C. G.:
Steel Castings Shrug off Wear and Impact Abuse, Feb 21 p 100

Milton, John
Sodium Process Extracts Titanium in Commercial Tonnages, May 9 p 120

Mueller, J. A.:
How Much do Grinding Fluids Affect Wheel Performance? Part I Feb 28 p 79, Part II Mar 7 p 134

Murphy, J. W.:
Good Design Cuts Casting Costs, June 6 p 100

Musnitsky, H.:
Bolts: How Tight is Tight? Mar 28 p 120

Mc

McManus, G. J.:
Appliances Fight to Hold Gain, May 2 p 58
Are Prices Coming in Reach? Feb 28 p 40
Barge Shipping Rides Boom Currents, Jan 24 p 35
Behind Scrap's Unexpected Rise, June 20 p 55
How Close is Commercial H-Iron? Apr 18 p 72
How to Cut Inventory Guesswork, May 9 p 70
Oil: Drilling Demands Mount, Jan 17 p 38
Openhearths: Industry Likes Them Bigger, Jan 10 p 28
Should You Make it or Buy it? June 13 p 86
Signs of Easing in Structurals, Apr 11 p 74
What Steel Buyers Can Expect in a Changing Market, May 23 p 83

McMullen, W. H. & A. T. Baldwin:
Get More Protection from Galvanized Coatings, Mar 28 p 115

McQuaid, H. W.:
New Way to Cut Sulfur Content, June 27 p 59

N

Neal, H. R.:
Flared Fins Pace Auto Sales, June 27 p 78
Will GM Miss the Boat in '58? June 20 p 68

Nelkin, Julian:
Should Job Shop Platers Automate? May 9 p 118

Nielsen, L.:
New Continuous-Feed Process Cuts Welding Costs, Mar 7 p 127

O

Obrzut, J. J.:
Resistance Welds Bypass Oxide Barrier, June 6 p 97
Where Computers Fit in Metalworking, Jan 17 p 74

Odiorne, George S.:
Brace for White Collar Drive, Apr 11 p 71

Ogburn, F. & M. Hilker:
New Test Checks Electroplating Porosity, Mar 7 p 123

P

Patton, W. G.:
Auto Part Makers Go After Diverse Markets, May 16 p 107
Brazed Tubing Bends to Many Product Needs, Apr 25 p 102
Castings Machine Better with Wafer Coolants, June 20 p 102
Engineers Face up to New Challenges, Feb 21 p 102
Fast Honing Cycles Produce Flat, Parallel Surfaces, May 23 p 136
Hard-to-Rigge Alloys Behave in Vacuum Setup, Jan 24 p 80
Integrated Setup Cleans and Stress Relieves Castings, Feb 7 p 112
Keep Your Plant Modernization Within Your Budget, Apr 25 p 108
New Miller Cuts Fast, Accurate Contours, June 27 p 104

R

Raddant, R. D.:
Railroads Study New Car Program, May 23 p 86
UAW Boosts Skilled Workers, Apr 18 p 71

Reed, R. C. & G. R. Fulton:
Aluminum Chromizing: Strength plus Corrosion-Resistance, June 6 p 102

Regeimbal, N. R.:
Big Business Probes Begin, May 30 p 55
Will U. S. Buck Industry Loans? June 20 p 58

Rodgers, J. S.:
How Tubemakers Work Zirconium, May 23 p 131

Rohan, T. M.:
Acid Etch-Milling is in Full-Scale Production, May 16 p 114
Company Cars: Should You Lease or Buy? Jan 17 p 36
Double Cutting Gives Planers a Boost, June 20 p 100
Modern Marketing Opens Doors to Bigger Foundry Sales, Apr 25 p 58
Small Shear Replaces Dies on Short Runs, Mar 7 p 136

S

Sasena, R. C.:
Why Centerless Brushing Finishes Faster, Feb 21 p 91

Schwarzkopf, A. J.:
Grit Blasting: An Aid to Carburizing Quality, Jan 24 p 71

Smith, Jr., Harry L.:
Aluminum: Plan for New Markets, Jan 3 p 162

Spangler, F. L. & M. E. Lackey:
Steam Treat Tools for Longer Shop Life, June 27 p 106

Strasser, Federico:
Stamping: What Type Dies to Use, Feb 7 p 99

Stroupe, R. M.:
Air Force Cuts Only Skin Deep, June 13 p 90
Roadbuilding: Program in Second Gear, Jan 17 p 34

Suits, C. Guy:
Plan Ahead to Make Research Effort Pay Dividends, Mar 7 p 83

Sullivan, G. F.:
Steel Warehouses Sell Services and Low Total Cost, May 16 p 67

T

Thompson, R.:
Diamonds are Cheap in Machining Glass, Cloth Laminates May 23 p 134

U

Unterweiser, P. M.:
Machinability Testing: Science or Fiction? Feb 28 p 75
New Furnace Heats to 6000° F in Minutes, June 20 p 98
New Nitriding Process Uses Glow Discharge, May 2 p 91

W

Ward, A. C.:
Electricity Plays Many Roles in Welding, Mar 14 p 146
How Heat and Time Affect Welding, Jan 17 p 75
How to Avoid Problems with Dcmic Electrodes, Feb 7 p 108
Weld Quality Rides with Steel Selection, Feb 21 p 104

Wilson, Jr., A. L.:
Let Magnets Clean up Rolling Mill Coolants, Mar 7 p 132

Winer, B. B. & A. C. Mann:
How to Straighten Large Shafts in an Emergency, May 2 p 104

The IRON AGE A CHILTON PUBLICATION

Chestnut and 56th Sts., Philadelphia 39, Pa.

Printed in U.S.A.

The

IRON AGE

CHESTNUT & 56th STS. PHILADELPHIA 39 PA.

SEMI-ANNUAL INDEX

July - December 1957 Volume 180

A CHILTON PUBLICATION

THE IRON AGE

The IRON AGE

SEMI-ANNUAL INDEX

July - December 1957 Volume 180

CLASSIFIED INDEX

A

Abrasives

Cleans, Peens Castings, Oct 31 p 142
Take Care when Using Coated Abrasives, Nov 7 p 159

Adhesives

Adhesive Plastic Tape has High Strength, Nov 7 p 162
Adhesives Aim at Metalworking, July 11 p 63
Adhesives Riding Boom Market, Oct 31 p 96
Colorful Tapes, July 4 p 101
Hold Metals at High Temperatures, Sept 12 p 162
Liquid Adhesive Bonds Steel, Nov 7 p 156
New Adhesive Bonds Plastic to Metal, Sept 26 p 82
Sandwich Adhesive, Sept 5 p 142

Adhesives, see also Bonding

Air Conditioning

Air Conditioners Stalk Industry, Dec 5 p 100

Aircraft

Heat Blocks Way to Faster Aircraft, Oct 17 p 75
How to Make 17-7 PH Honeycomb Panels, by P. M. Allen, July 11 p 99
New Furnaces Treat Giant Forgings and Extrusions, by R. R. LaPelle, July 11 p 106

Aircraft Industry

Aircraft Changes Product Mix, by R. R. Kay, Aug 8 p 62
Aircraft Subcontractors Suffer, by R. R. Kay, Oct 24 p 185
How Air Outlooks Hurt Seattle, by R. R. Kay, Oct 24 p 43
How Hard will Missile Spending Hit Industry? by R. O. Schulin, Nov 21 p 81
Lower Ceiling for Aircraft, by R. R. Kay, Aug 15 p 75
Missile's End Means Layoffs, by R. R. Kay, July 25 p 91
Missile Picture Begins to Clear, Oct 10 p 76
Plane Cuts Sharpen Competition, by R. R. Kay, Sept 12 p 167
Reacts to Cutback Drafts, July 25 p 52
Seattle Puts Stress on Diversifying, by R. R. Kay, Aug 29 p 49
What's Ahead in Platemaking? by R. R. Kay, Oct 17 p 101

Alloys

Alloy Resists Heat, Aug 1 p 120
Aluminum Alloy Has Brighter Finish, July 4 p 104
Ceramic Coatings Raise Heat Resistance of Super-Alloys, by P. A. Huppert, Nov 14 p 152
Copper-Base Alloy Compares with Nickel-Silver, by C. H. Hannon, Nov 21 p 134
High Cobalt Alloy ups Product Life, Nov 21 p 156
How Iron Affects Forgeability of Copper Alloys, by C. H. Hannon, Nov 7 p 125
How to Get More for your Metalworking Dollar, Number 11 of a Series, Copper and Brass, Sept 5 p 115
New Mill will Roll Superalloys, Nov 21 p 85
Tough Alloys Stump the Experts, by E. J. Egan, Jr., Dec 26 p 43

Alloy Steels

Chain Saws Add New Safe Links, Aug 8 p 47
Hardened Carbon Steel Cuts Plastic Wear, Dec 12 p 149
Heat Treating Plain Carbon and Low Alloy Steel, Oct 24 p 205
Higher Vanadium Improves Hot Strength of Low Alloy Steel, by Paul Shahinian & J. R. Lane, Aug 1 p 91
New Magnetic Steel Claims Greater Efficiency, Oct 31 p 68
Supersonic Speeds Need Steel, by T. M. Rohan, July 25 p 79

Aluminum

Aluminum Moves into Housing, Aug 22 p 66
Aluminum Pipe Woos Farmer, Aug 22 p 62
Aluminum Woos Shipbuilders, by F. J. Starin, Dec 12 p 88
Another Aluminum Bid for Cans, Nov 7 p 88
Can Aluminum Hit Can Market? by G. J. McManus, Oct 10 p 78
Enameled Aluminum Catches on, July 4 p 43
Guide to Heat Treating Aluminum, Oct 24 p 220
How to Get Stronger Al-Fe Bonds, by Samuel Storchheim, Dec 5 p 136
Rebuttal to Aluminum Can Critics, by G. G. Carr, Oct 31 p 23
T-Inserts Save Space, Nov 28 p 3

Aluminum Co. of America

Alcoa Unveils Major Expansion, July 18 p 78

Amortization, see Taxation

Anodizing, see Cleaning & Finishing

Appliances

Appliance Makers Cut Back, Go Fair for Comfort, by K. W. Bennett, July 18 p 78
How Presses and Weld Steps Form Sheet Metal Units, by Herbert Chase, Dec 19 p 140

Armco Steel Corp.

How to Make 17-7 PH Honeycomb Panels, by P. M. Allen, July 11 p 99
Stainless Hopper Cars Stand Long Service, by J. Halling & R. K. Thompson, Oct 17 p 115

Atomic Energy

Atomic Energy Problems Mount, Nov 7 p 86
Builds Big Smasher, Oct 10 p 141
Gives Data on Atom, Aug 8 p 111
How much Radiation can a Motor Take? Nov 14 p 149
New Reactor Spurs Nuclear Research, Nov 21 p 149
Nuclear Building Pace Steps up, July 4 p 44
Radioisotopes: Use them on Tough Problems, by C. M. Crompton, Oct 17 p 111
Reactor Goes Critical, Oct 31 p 72
Reviews Reactor Cost, Oct 17 p 131
Who'll Develop Atomic Power? By G. H. Baker, Aug 15 p 72

Automation

Automated Line Adjusts Easily to Design Changes, by R. H. Eshelman, Dec 5 p 144
Automated Tube Mill Uses Standard Drives, Nov 7 p 153
Automatic Handling Highlights Hammerless Forging Setup, by Herbert Chase, Oct 10 p 118
Automation Devices Give Flexibility to Transfer Line, July 11 p 108
Backup Rolls Drive New Tinplate Mill, Aug 1 p 59
Blast Cleaners Treat Parts in Line, Dec 26 p 52
Boosts Slitter Output, Aug 29 p 81
Building-Block Line Handles Various Shaft Sizes, by R. H. Eshelman, Nov 28 p 82
Handling Unit Speeds Blast-Cleaning Cycle, Nov 14 p 168
How much Automation can Small Plants Afford? By R. A. Willsey, Sept 26 p 115
How to Select Temper Mill Units, Sept 19 p 177
One Machine Does Work of Four in half the Time, Oct 3 p 108
Oscillating Shear Cuts Angles in Coil Stock, by F. T. P. Plimpton, Jr., July 1 p 78
Simple Motor Control Speeds Ball Grinding, Nov 14 p 102
Soldering: Automation Breeds New Problems, by H. J. McGarvey & G. P. McKnight, Aug 15 p 104
To Improve Quality, Mills Push Automatic Controls, by G. J. McManus, Aug 1 p 51
Two Tanks do Work of Ten in Surface Treatment, by C. J. Riddle, Aug 22 p 104
Vacuum Lift Speeds Handling of Sheets on Turret Punch Press, by E. J. Egan, Jr., Aug 15 p 84

Automation, see also Electronic Devices & Controls

Automobiles and Trucks

A Look at the '58 Chrysler Line, by H. R. Neal, Oct 3 p 70
Are Auto Tail Fins Functional? By H. R. Neal, Sept 19 p 114
Behind Creation of Ford's Edsel, by H. R. Neal, Oct 3 p 60
Coming Changes in Truck Design, by H. R. Neal, Nov 14 p 130
Foreign Cars Dent U. S. Market, by H. R. Neal, Nov 28 p 56
Get Better Finishes for Less with Hot Paint Spray, by W. G. Patton, Aug 1 p 104
Is New Car Quality Slipping? by H. R. Neal, Aug 15 p 68
Limit near, for Low Silhouettes, by H. R. Neal, Oct 24 p 178
Metal Use in Trailers Growing, by R. R. Kay, Oct 10 p 97
Pretesting Team Smooths Way for Production Changes, Oct 3 p 102
Rush is on for Leased Trucks, by K. W. Bennett, Oct 3 p 62
Tank Trucks Rob Stainless Trend, July 18 p 75
The New Edsel: But Will it Sell? By H. R. Neal, Aug 29 p 42
Unsafe Cars are Growing Menace, by H. R. Neal, Sept 5 p 84
Will Detroit Buy a Safety Car? by H. R. Neal, Nov 7 p 96
Will Economy Sell Better in '58? By H. R. Neal, Oct 10 p 90
Will Electric Cars Come Back? By H. R. Neal, Dec 26 p 52

Automobiles & Trucks, Engines & Parts

Ford Makes Exhaust Control Headway, Aug 22 p 79
How a Car Uses its Horsepower, by H. R. Neal, Aug 22 p 56
How Engineers Cut Auto Noises, by H. R. Neal, Aug 1 p 68
Small Company Tackles Big Job, by H. R. Neal, July 11 p 52
Unit Body Strengthens Lincoln, by H. R. Neal, Oct 31 p 56
Why GM Has Rear Winding Blues, by H. R. Neal, July 18 p 88
"X" Frame a Break for Designers, by H. R. Neal, Dec 12 p 106

Automotive Industry

Automakers Top Metal Buyers, by H. R. Neal, Sept 26 p 92
Behind GM's Foreign Car Plans, by H. R. Neal, July 4 p 52
Diversity no Problem at Large Job Shop, by T. M. Rohan, Dec 5 p 140
How Ford Guards Auto Secrets, by H. R. Neal, Nov 21 p 98
Labor Unrest Spreads in Detroit, by H. R. Neal, Dec 5 p 108
Why Lincoln Located at Wixom, by H. R. Neal, Sept 12 p 106
Why the Auto Industry Stays Big, by H. R. Neal, Dec 19 p 110
1958 Year of Decision for AMC, by H. R. Neal, Oct 24 p 94
You Can Miss Your Auto Market, Oct 10 p 89

B

Bars & Shapes

Add Copper to Make Steel Bars more Machinable, Aug 22 p 112
Cold Reduction Saves Time, Cuts Waste, Oct 17 p 122

Bearings

Bearing Plant Design Pays off, by T. M. Rohan, Sept 19 p 203
Plastic Ball Bearings Compete with Steel, by William Ceyzeriat, Oct 10 p 116

Bonding

Adhesives Aim at Metalworking, July 11 p 63
Bonds Plastisols to Nylon Base, Nov 7 p 162
Bonds Rubber, Metal, Sept 12 p 161
Bonds Soft Metals to Semiconductors, July 25 p 101
How to Get Stronger Al-Fe Bonds, by Samuel Storchheim, Dec 5 p 136
New Adhesive Bonds Plastic to Metal, Sept 26 p 82

Nylon on Metal Cuts Part Wear, Sept 12 p 159

Boring

Trepanning: Faster Holes with Fewer Chips, by E. J. Egan, Jr., Aug 15 p 91

Boron

Ceramic Coatings Raise Heat Resistance of Superalloys, by P. A. Huppert, Nov 14 p 157

Brazing

Applying Heat Right Speeds Brazing, July 18 p 139
Braze 240 Parts per Hour, Aug 8 p 94
Brazing Flux, Dec 12 p 153
How to Braze Titanium, by Harry Schwartzbart, Aug 1 p 100
Paste Filler Metal Gives Dip Brazing a Boost, by A. M. Setapen, Sept 12 p 136

Business

Advice for Small Business, Oct 3 p 58
Do Industry's Books Inflate Profit? Sept 12 p 85
Monopoly Report may Fizzle out, by G. H. Baker, July 25 p 89
Trouble Spots for Small Business, Sept 26 p 91

Business, see also Forecasting; individual Industries

C

Canada

Canada Wants European Funds, by R. R. Kay, Dec 19 p 117

Casting, Continuous

Continuous Casting Keeps Costs Down, Sept 19 p 172

Casting, Sand

Mold Treatment: The Key to Quality Castings, by Hubert Chappie, Aug 15 p 98
Produces Sand Molds via New Technique, Sept 26 p 141

Castings, Ferrous

Axe "Custom" Properties into 17-4 PH Castings, by D. H. Burgan, Aug 29 p 67
Casts Big Irregular Stainless Screw, July 11 p 123
How to Check Quality in Ferritic Nodular Iron, by Herman Mansfield, Aug 8 p 88
Mold Treatment: The Key to Quality Castings, by Hubert Chappie, Aug 15 p 98
Stainless Castings Resist Corrosion, Oct 17 p 127

Castings, Nonferrous

Casting, Sept 5 p 127
Direct Chill Machines Cast Larger Billets, July 18 p 137
How Defects Affect Tensile Strength of Light Alloy Castings, by Herman Mansfield, July 4 p 75

Cement

Iron Cement Supports 2500 Tons 60 Years, July 18 p 147

Ceramics

Alumina Puts Hot Work in Harness, Dec 12 p 138
Ceramic Coatings Raise Heat Resistance of Super-Alloys, by P. A. Huppert, Nov 14 p 157

Chromium

Diffusion Process Makes Plain Carbon Sheet Stainless, Nov 7 p 128

Clad Metals

Clad Strip, Dec 5 p 161
Cladding on Carbon Steel Opens new Fields to Titanium, by R. C. Bertossa, Oct 31 p 59

Cleaning and Finishing

Anodizes Quickly, Sept 26 p 146
Automatic Spray Boosts Core Mold Output, July 11 p 102
Blast Cleaner Setup Cuts Handling Costs, Nov 7 p 146
Blast Cleaners Treat Parts in Line, Dec 26 p 52
Coating Protects Parts from Liquid Aluminum, Sept 26 p 159
Coating Resists Salt, Other Corrosives, Aug 1 p 121
Coating System Ends Re-Handling, Nov 21 p 160
Continuous Shot Blast Treats Coil Stock, by T. M. Rohan, Aug 8 p 92
Diffusion Process Makes Plain Carbon Sheet Stainless, Nov 7 p 128
Etch Stainless Plaques Quickly and Profitably, Sept 12 p 132
For Coatings That Last, Get Base Metals Clean, by S. J. Oechsle, Jr. & K. G. Lefevre, July 11 p 95
Fights Rust, Sept 5 p 143
Gage Tightens Control of Wire Coating Process, Nov 21 p 132
Handling Unit Speeds Blast-Cleaning Cycle, Nov 14 p 168
Hot-Dip Aluminizing Widens Cast Iron Uses, Aug 8 p 87
Laboratory Simulates Production to Check Coatings, Aug 1 p 106
Machine Brushing Strengthens Large Parts, Nov 14 p 165
Machines Shear Dirt from Cast Parts, Aug 1 p 117
Metal Coating, Dec 5 p 160
New Dip Process Plates Gold, Aug 22 p 61
Plastisol Coat Nils Parts Scratching, July 11 p 134
Plastisol Linings Enlarge Scope of Plating Operations, by R. C. Bales, Sept 12 p 130
Silver-Plates Aluminum, Dec 5 p 161
Simple Checks Improve Spray Gun Efficiency, Nov 28 p 105
Strip Coating, Dec 5 p 161
Tumbling Big Parts Speeds Finishing, Aug 1 p 118
Two Tanks do Work of Ten in Surface Treatment, by C. J. Riddle, Aug 22 p 104
Vacuum Deposition Avoids Embrittlement, by V. Dross, Dec 19 p 142
Vertical Expansion Raises Treatment Rate, by A. E. Uheen & E. A. Stockhower, July 18 p 114

Coils

Basket Holds Coils for Cleaning, Sept 12 p 152
Choice of Stock Cuts Scrap Loss, by Herbert Chase, Nov 28 p 99
Continuous Shot Blast Treats Coil Stock, by T. M. Rohan, Aug 8 p 92
Setup Prevents Mixup of Coil Materials, Nov 28 p 103

Columbium

Columbium Metal, Nov 7 p 161
Seek New Methods to Work Columbium, Nov 21 p 148

Computers, see Data Processing

Construction

A Look Behind Curtain Walls, by K. W. Bennett, Oct 24 p 168
Aluminum Moves into Housing, Aug 22 p 66
Big Homebuilding Spurt Unlikely, Aug 15 p 67
Enamel on Stainless: Combination for Strong Walls, Dec 5 p 139
Metal Wall Construction Wins Building Code Recognition, by F. J. Starin, July 25 p 67
Metal Wall Research, Dec 5 p 99
Mock-up Aids Builder, Nov 7 p 152
New Roof Beam Cuts Building Costs, Nov 14 p 193

Construction, see also Structural Steel; Welded Construction

Containers

Another Aluminum Bid for Cans, Nov 7 p 88
Can Aluminum Hit Can Market? By G. J. McManus, Oct 10 p 76
Drop Draw Disk for One-Piece Gas Container, Oct 10 p 122
Mills Expand Capacity to Fill Growing Tinplate Needs, by G. J. McManus, July 18 p 71
Rebuttal to Aluminum Can Critics, by G. G. Carr, Oct 31 p 24

Conventions

Iron, Steel Engineers in Annual Meeting, Sept 19 p 161
World Metallurgical Congress Meets, Oct 24 p 252

Coolants

Ways to Make Copper and Brass Pay off, Sept 5 p 122

Corrosion

Crystals Key in New Corrosion Theory, Nov 14 p 120
Cures Rust Headaches, July 4 p 104
How to Get More for your Metal-working Dollar, Number 11 of a Series, Copper and Brass, Sept 5 p 115

Corrosion, see also Cleaning & Finishing

Costs, see Management; Prices

Curtiss-Wright Corp.:

How Defects Affect Tensile Strength of Light Alloy Castings, by Herman Mansfield, July 4 p 75

D

Data Processing

Computer Speeds Paperwork in New Plant, July 4 p 85
Computers now "Talk" to each other, Nov 14 p 192
Numerical vs. Tracer Controls, by E. J. Egan, Jr., Dec 19 p 119
Punch Cards Control Jig Borer, Dec 26 p 54
Surveys Computers, Oct 3 p 119
The Winner: Numerical Controls, by E. J. Egan, Jr., Sept 5 p 93
To Improve Quality, Mills Push Automatic Controls, by G. J. McManus, Aug 1 p 51
Training Program Gears Workers to Tape Control Concept, Nov 7 p 130

Defense

Aircraft Reacts to Cutback Drafts, July 25 p 73
Can you Machine Missile Hardware? By E. J. Egan, Jr., November 7 p 121
Can we Recoup on Missiles? By N. R. Regeimbal, Oct 17 p 74
Cordiner Report Comes into Focus, by G. H. Baker, July 4 p 57
Defense Cuts Won't Hurt Much, Sept 19 p 104
Defense Dept. Studies Ford Plan, by E. J. Egan, Jr., Sept 26 p 101
Get Set for 40 Pct Missile Hike, by G. H. Baker, Nov 28 p 61
How Air Cutbacks Hurt Seattle, by R. R. Kay, Oct 31 p 43
How Hard will Missile Spending Hit Industry? By R. O. Schulin, Nov 21 p 81
How to Airlift Heavy Equipment, Nov 14 p 115
Lease for Cash, or Cut Prices? By E. J. Egan, Jr., Aug 1 p 77
More Belt Tightening for Defense, Aug 8 p 43
Missile Picture Begins to Clear, Oct 10 p 76
Missile Push Aids Electronics, by R. R. Kay, Sept 19 p 123
ODM Stiffens Tool Leasing Plan, by E. J. Egan, Jr., Oct 17 p 103
Plane Cuts Sharpen Competition, by R. R. Kay, Sept 12 p 107
Probe Launches Defense Speedup, by N. R. Regeimbal, Dec 5 p 97
San Francisco Avoids Slowdown, by R. R. Kay, Nov 21 p 105
Sputnik Era's Impact on Business, by Eliot Janeway, Nov 14 p 118
Standby Controls in Works again, by G. H. Baker, Dec 5 p 113
What's Ahead in Missile Probe? By G. H. Baker, Nov 21 p 103
Who'll Hold M-Day Inventory? By G. H. Baker, Oct 31 p 41
Why Defense will Spark Economy, by Eliot Janeway, Dec 19 p 100
Why U. S. Lags in Missile Race, by N. R. Regeimbal, Oct 24 p 166
Wilson Swings Axe on Defense, Sept 26 p 79

Defense, see also Aircraft Industry

Design

Are Auto Tail Fins Functional? By H. R. Neal, Sept 19 p 116
Automated Line Adjusts Easily to Design Changes, by R. H. Eshelman, Dec 5 p 144
Coming Changes in Truck Design, by H. R. Neal, Nov 14 p 130
Fatigue Machine Tests Design and Materials, Sept 12 p 134
High Output and Flexibility Can go Together, Aug 1 p 96
How Ford Guards Auto Secrets, by H. R. Neal, Nov 21 p 98
Make Assembly Part of Design, by E. J. Egan, Jr., July 18 p 97
Operating Mockup Cuts Design Time, Nov 14 p 180
Where to Start Cutting Costs, Sept 19 p 103

Diamonds

Diamonds Reflect Industry Pace, by G. G. Carr, Sept 12 p 92
Man-Made Diamonds Hit Market, Nov 7 p 87

Dies

New Method Cuts Cost of Short Run Stamping, Oct 3 p 93
Shortcut to Long Runs: Heavy Duty Steel Rule Dies, by E. K. Scott, July 4 p 80
Tool and Diemakers Watch Detroit, Nov 14 p 122

Douglas Aircraft Co.:

Special Small-Parts Shop Unties Production Tangle, by N. E. Heath, Oct 10 p 113

Drafting

Does Simplified Drafting Really Cut Costs? By H. Egerer, July 11 p 104

Drilling

Special Setups Mass-Produce Accurate Holes, Oct 3 p 105

E

Earthmoving Equipment, see Roads

Editorials

Alibis are no Excuse we are Losing the Cold War, Oct 10 p 7
Anti Anti-Egghead? Yes, but let's do it Calmly, Dec 19 p 7
Business as Usual? Hardly, for Quite Some Time! Oct 31 p 7
Delayed Payments: Uncle Sam is Delinquent, Oct 17 p 7
Depression Complex: It's Still with some of us, Aug 2 p 7
Disarmament Bugaboo: Don't Let it Alarm You, July 18 p 7
Full Mobilization: It's More than Just Things, Nov 14 p 7
Indispensable Person — Lucky if you Have one, Aug 8 p 7
Keep your Head Screwed on. You Cannot Afford to Lose it! Dec 12 p 7
Management Material: Is it Hidden in the Ranks? Aug 29 p 7
Mr. Eisenhower's Quandary: Only he can Steer his Course, Dec 5 p 7
Ode to the Old Man — No "Organization Man" is he, Dec 26 p 7
Our Defense Problem: Is it Survival or Fiscal? Aug 15 p 7
Our Industrial Cake: Can We Have and Eat it too? Oct 24 p 7
Our Industrialist: Saint, Sinner or Regular? Nov 7 p 7
Pull up your Socks: It may Get a Little Sloppy Oct 3 p 7
Roll up your Sleeves. There's Plenty of Opportunity, Nov 28 p 7
Russian Roulette: It is a Risky Business, Sept 19 p 7
Short Term Jitters: Let's Get them over with! Nov 21 p 7
Short Term Squalls: They'll Always be with us, Aug 1 p 7
Social Conscience is it Being Overworked? July 25 p 7
Steel Price Hassle Everyone is in the Act, July 11 p 7
The Defense Conundrum: When Do we Get an Answer? Sept 26 p 7

The Honeymoon is over, now Let's Get down to Work, July 4 p 7
The New Pessimism: How Valid is it? Sept 12 p 7
The People's Pendulum: It's Swinging Against Labor, Sept 5 p 7

Education

Aid to Education: What Industry Can do to Help, by G. Grant Carr, Dec 12 p 83
Can we Get Enough Technicians? Oct 24 p 164
Critics Rip Metal Trade School Methods, by P. J. Cathey, Aug 15 p 56
Science Education Aid Planned, Dec 26 p 25
What about a Dept. of Research? By G. H. Baker, Nov 14 p 135
Why the U. S. Lags in Education, by G. H. Baker, Dec 19 p 115

Education, see also Training Programs

Electrical Equipment

Dissolves Tin in Germanium, Sept 26 p 140
Gold-Plated Circuits, Dec 19 p 162
Prevent Electrical Failures: it Pays its Own Way, by L. E. Johnston, Dec 19 p 137
Stainless Steel Cases Protect Batteries, Dec 5 p 158
Transistors Sales are Skyrocketing, Sept 5 p 74

Electronic Devices & Controls

Electronic Signaller Reduces Quench-Cracking of Steels, by P. M. Unterweiser, Nov 28 p 79
If you Use Electronic Controls, by E. J. Egan, Jr., Nov 21 p 107
Instruments Show their Ability, Sept 19 p 108
Load Cells Weigh Molten Metal, Sept 19 p 148
Missile Push Aids Electronics, by R. R. Kay, Sept 19 p 123
Tape Controls Aim at Short Runs, by E. J. Egan, Jr., Oct 31 p 45
To Improve Quality, Mills Push Automatic Controls, by G. J. McManus, Aug 1 p 51
Warehouse Helps Customers with Small Rolling Mill, Nov 28 p 88

Electronics Industry

Is the Electronics Rush over? Oct 24 p 169

Electroplating

Better Corrosion Resistance Stems from New Plating Line, Sept 19 p 154
Cuts Plating Rejects, Oct 10 p 142
Galvanizing: New Ways for an Old Process, by A. T. Baldwin & W. H. McMullen, Sept 19 p 150
How to Dispose of Cyanide Plating Wastes, by R. H. Robbins, Nov 28 p 92
New Dip Process Plates Gold, Aug 22 p 63
New Plating Method Rustproofs Steel, July 25 p 103
Plastisol Linings Enlarge Scope of Plating Operations, by R. C. Daley, Sept 12 p 130
Saves Plating Rejects, Oct 3 p 120
Vacuum Deposition Avoids Embrittlement, by V. Bross, Dec 19 p 142

Electroplating, see also Cleaning & Finishing

Engineers & Engineering

AISE Papers, Sept 19 p 172

Engines

Develop New Engines, Sept 26 p 156
Electric Motors Scorn Smoothness, Silence, Sept 12 p 151

Executives, see Management; Training Programs

Extrusions

Spray Lubricates Extrusion Dies Faster, Aug 29 p 70

Fabrication

Business Booms for Production Warehouses, by T. M. Rohan, Nov 28 p 44
Diversity no Problem to Large Job Shop, by T. M. Rohan, Dec 5 p 140
Form Thick Titanium Spheres by Hot Spinning, Dec 5 p 142
How Press and Weld Steps Form Sheet Metal Units, by Herbert Chase, Dec 19 p 140
How to Make Oxygen Cutting do More Jobs, by Carl Underwood, Aug 29 p 64
Pressure Eases on Fabricators, by R. D. Raddant, July 25 p 69
Produces Carbon Parts in Minutes, not Weeks, Dec 12 p 117
Shortcut to Long Runs: Heavy Duty Steel Rule Dies, by E. K. Scott, July 1 p 80
Slugging Speeds Small-Lot Output of Precision Parts, July 18 p 116
Special Small-Parts Shop Unties Production Tangle, by N. E. Heath, Oct 10 p 133
Tips on Welding Thick-Walled Vessels, Nov 14 p 162

F

Fasteners

Are you Gazing your Screw Threads Accurately? July 4 p 82
Fastener Recess Holds Driver Tightly, July 25 p 100
Fastener Sales Swinging Upward, Sept 12 p 30
Feeder Positions Screws for Assembly, Oct 31 p 70
Lock Fasteners Probe Auto Market, Sept 26 p 84
Locknuts Reduce Wear, Maintenance Costs, Dec 12 p 150
New Machine Doubles Cold Heading Output, July 18 p 119
Switch to Cold Heading Cuts Costs, Nov 14 p 188
Ti Blind Bolts, Sept 5 p 140
Unit Cold-Forges Rig-Drum Screws, Sept 12 p 154

Finance

Canada Wants European Funds, by R. R. Kay, Dec 19 p 117
Congress Needs a Lot of Courage, by G. H. Baker, Dec 26 p 37
Do Industry's Books Inflate Profit? Sept 12 p 85
Door is Closed to Extra Funds, by G. H. Baker, Oct 17 p 99
Everybody Talks About it..., by N. R. Regenthal, July 1 p 42
FRB Keeps Grip on Tight Money, by G. H. Baker, Oct 24 p 185
Hard Money Policy Continues, by G. H. Baker, July 18 p 93
Inflation Getting Close Watch, by G. H. Baker, Sept 12 p 105
It Looks like a Record Budget, by G. H. Baker, Dec 12 p 111
There are no Automatic Profits, July 25 p 82

Finance, see also Government; Taxation

Foil

Automatic X-Ray Gage Checks Foil Thickness, Nov 21 p 166
Radiation Controls Foil Thickness, Nov 7 p 155

Forecasting

A Look Behind Curtain Walls, by K. W. Bennett, Oct 24 p 168
A Rising Barometer: Coated Steel, Aug 15 p 59
Business is Good, but Linepipe Market Develops Leaks, by T. M. Rohan, Dec 19 p 91
Business Optimists Still Dominate, Aug 22 p 63
Business Writers Look at 1958, Dec 19 p 109
Buyers Lean to Non-Durables, Oct 3 p 69
Buying Spree Cheers Business, by G. H. Baker, Oct 3 p 75
Consumer Spending: Key to 1958, Nov 7 p 95
1958 Business Still Looks Good, by G. G. Carr, Sept 26 p 83
How Smaller Firms Can Make Sales Forecasts, by P. J. Sandmaier, Oct 31 p 21
How Sputnik Affects Business, Oct 24 p 177
Ike's Impact on Business Outlook, by Tom Campbell, Dec 5 p 94
Is Business Caught in a Cycle? Dec 26 p 31
Purchasing Agents are Playing it Close to the Vest, by K. W. Bennett, Sept 26 p 75
Sputnik Era's Impact on Business, by Eliot Janeway, Nov 14 p 188
Summer Slump is only Seasonal, Aug 29 p 31
Tool and Diemakers Watch Detroit, Nov 14 p 122
You Can Miss Your Auto Market, Oct 10 p 89
Why Defense will Spark Economy, by Eliot Janeway, Dec 19 p 100

Forecasting, see also Industrial Expansion

Foreign Trade

Behind GM's Foreign Car Plans, by R. R. Neal, July 4 p 52
Foreign Cars Dent U. S. Market, by R. R. Neal, Nov 28 p 56
How you can Build a Market in Venezuela, by Tom Campbell, Nov 21 p 86
Hurdling the Export Barriers, by G. J. McManus, Oct 3 p 56
Imports Hit Oil Country Market, by K. W. Bennett, Nov 21 p 90
More Far Eastern Trade Coming, by R. R. Kay, Oct 3 p 76
Sales of Imported Tools Climb, by E. J. Egan, Jr., Nov 14 p 139
Swiss Mount Drive to Lower Tariffs, Sept 19 p 105
Why Southern Mills are Hurting, by G. J. McManus, Nov 14 p 121

Forging

Automatic Handling Highlights Hammerless Forging Setup, by Herbert Chase, Oct 10 p 118
Forgeability Tests: Are the Results Reliable? By P. M. Unterweiser, Nov 14 p 153
Forges Big Items, July 11 p 130
How Iron Affects Forgeability of Copper Alloys, by C. H. Hanson, Nov 7 p 125
Uses End-Welded Studs as Tong Holds in Forging, Aug 8 p 110

Foundry

Combined Methods Lick Casting Problems, Sept 19 p 145
Foundry Clinics, July 18 p 118
Foundry Unit Broadens Scope, Nov 14 p 187
Founders Review 90-Day Clause, Oct 31 p 28
Handling Units Speed Foundry Cycle, Dec 5 p 134
How to Cut Costs on Patterns and Cores, by R. B. Sinclair & W. N. Richards, Dec 12 p 132
Lead in Cast Steel: How Much Does Machinability Improve? By W. J. Phillips & D. B. Barton, Aug 15 p 102

Foundry, see also Castings

France

How to Encourage Machine Tools, by E. J. Egan, Jr., July 11 p 80

Freight

Freight Angle in Merger Battle, Sept 26 p 78

Fuel

Gilsonite Project Opens up Vast Potential, by Tom Campbell, Aug 1 p 54
Jet Flame Atomizes Openhearth Fuel, Sept 19 p 172

Furnaces

Bins under Furnaces Speed Ash Disposal, Sept 26 p 147
Horizontal Grate Cools Efficiently, Nov 14 p 184

Furnaces, Blast

Carbon Linings Stand up to Long Furnace Campaign, Aug 29 p 74
Load Cells Weigh Molten Metal, Sept 19 p 148
Furnace Repair Men Must Plan, Recheck, Sept 19 p 180

Furnaces, Electric

Automatic Controls Reduce Power Demand and Costs, Oct 3 p 118
Furnace Provides Flexible Treatment, Nov 14 p 190
New Steelmaking Setup Begins Operation, Dec 12 p 152

Furnaces, Heat Treating

Anneals Big Castings, July 18 p 138
Anneals Continuously, July 11 p 124
Conveyor Triples Furnace Usage, Oct 10 p 140
New Furnaces Treat Giant Forgings and Extrusions, by R. R. LaPelle, July 11 p 106
One-Man Furnace Does Five Heat Treating Jobs, by H. W. Bassett, Aug 22 p 106
Prevent Lighting-Off Explosions with Safety Controls, by J. B. Smith, Nov 7 p 134

Furnaces, Vacuum

Big Gains in Vacuum Metallurgy, by G. G. Carr, July 4 p 43
How to Select a Vacuum Arc Furnace, by L. L. Johnson, Oct 3 p 96
Vacuum Arc Furnace Mass-Melts Alloys, Aug 22 p 125
Vacuum Melt Unit Aids Reactive Metal Study, Sept 26 p 152
Vacuum Melting Moves Ahead, July 18 p 79
Weld Copper Cooling Coils for Fast Production, Dec 12 p 135

G

Gears

Hard-Faced Spur Gears Last, Last and Last, Sept 26 p 154

General Electric Co.:

How Iron Affects Forgeability of Copper Alloys, by C. H. Hanson, Nov 7 p 125
How to Select a Vacuum Arc Furnace, by L. L. Johnson, Oct 3 p 96

Generators

Gas Generator Sales Booming, Dec 12 p 91

Germany

German Sales Lose some Steam, by E. J. Egan, Jr., Aug 15 p 77

Gilsonite, see Fuel

Government

Congress Did a Lot of Talking, by G. H. Baker, Sept 12 p 91
Congress Needs a Lot of Courage, by G. H. Baker, Dec 26 p 37
Government in Business: Costly Threat to Free Enterprise, by Clarence J. Brown, Nov 28 p 39
Ike Asks for Law Change, by G. H. Baker, Sept 5 p 89
It Looks like a Record Budget, by G. H. Baker, Dec 12 p 111
Standby Controls in Works again, by G. H. Baker, Dec 5 p 113
States Cool to Ike's Proposal, by G. H. Baker, July 11 p 77
What about a Dept. of Research? By G. H. Baker, Nov 14 p 135
Who'll Develop Atomic Power? By G. H. Baker, Aug 15 p 73

Government, see also Defense; Legislation; Taxation

Great Britain

British Steel Plan, Aug 22 p 63

Grinding

New Theory Bolsters Grinding Research, by P. M. Unterweiser, Sept 12 p 127

H

Hardening

Induction Hardening Boosts Valve Output, Nov 7 p 153
Pointers on Surface Hardening, Oct 24 p 212

Heating & Heating Equipment

Heat Exchange Idea, Sept 12 p 154

Heating Setup Thaws Ore Car Rapidly, Aug 15 p 127
Rotary Heating Unit Treats Rotors, Sept 15 p 153

Heat Treating

Age "Custom" Properties into 17-4 PH Castings, by D. D. Burgan, Aug 29 p 67
Better Handling Cuts Heat Treat Rejects, Aug 1 p 116
Electronic Signaller Reduces Quench-Cracking of Steels, by P. M. Unterweiser, Nov 28 p 79
Hardens Rivet Part; Leaves Rest Alone, July 11 p 136
Helium Injection ups Annealing Rate, Sept 19 p 176
How to Get More for your Metal-working Dollar, Number 12 of a Series, Heat Treating, Oct 24 p 207
How to Heat Treat Gray and Ductile Cast Irons, Oct 24 p 215
Induction Harden Small Lots for Extra Benefits, by R. T. Hook, Sept 26 p 126
New Furnaces Treat Giant Forgings and Extrusions, by R. R. LaPelle, July 11 p 106
New Temperability Calculator, by Leonard Jaffe & Edward Gordon, Oct 24 p 227
Snap Lubes Stampings, Aug 15 p 123
Strengthen Powdered Iron Parts with Steam, by F. L. Spangler & M. E. Lackey, Aug 1 p 98

I

Industrial Expansion

A Lake Port Gets Set for the St. Lawrence Seaway, by T. M. Rohan, Aug 22 p 59
Don't Sell the West Coast Short, by R. R. Kay, Nov 14 p 137
Industry Expansion Levels off, Sept 19 p 102
Why Companies Move to Florida, by Floyd Lawrence, Dec 19 p 96

Industrial Relations

Are Authors Unfair to Businessmen? Oct 3 p 59
Business Toughens its Defense, Sept 12 p 99
Drive to Educate Public Begins, by E. J. Egan, Jr., Dec 12 p 115
How to Build Good Communications, Aug 29 p 33
If you Need Help in Personnel, July 18 p 80
Labor's Next Five-Year Plan, by T. M. Rohan, Oct 10 p 82
Needed: A Merger of Merit Plans, by M. A. Barone July 25 p 75
Success in Business Takes More Than Urge to Get Ahead, by Benjamin F. Fairless, July 4 p 34

Industrial Relations, see also Labor

Instruments

Analyze Steel Heats Quickly and Simply, Oct 17 p 123
Automatic Controls Cut Forging Cost, Dec 5 p 157
Automatic X-Ray Gage Checks Foil Thickness, Nov 21 p 166
Gage Tightens Control of Wire Coating Process, Nov 21 p 132
Industry Looks at Thermal Image, Oct 17 p 76
Looking for Trouble, July 25 p 76
Instruments Show their Ability, Sept 19 p 108
New Temperability Calculator, by Leonard Jaffe & Edward Gordon, Oct 24 p 227
Optical Tooling: Short Cut to Accurate Alignment, by William Czygan, Oct 31 p 63
Sight Gage Checks Gundrill Cutting Edges, Oct 3 p 106
Vibration Checker, Sept 26 p 161
Whirly-Bird Lab Seeks out Ore, Aug 15 p 117

Instruments, see also Electronic Devices and Controls; Testing and Inspection

Insulation

Gage Tightens Control of Wire Coating Process, Nov 21 p 132
Tape Insulates, Sept 12 p 158

Inventories

Coast Steel Buying Will Slide, by R. R. Kay, Dec 26 p 39
How Deep are Inventory Cuts? July 18 p 87
Photos Answer Stock Questions, Dec 26 p 23
Purchasing Agents are Playing it Close to the Vest, by K. W. Bennett, Sept 26 p 75
Warehouse Forecast: Slightly Better, Oct 10 p 81
Warehouse Sales off from 1956 Peak, Aug 29 p 21
Who'll Hold M-Day Inventory? By G. H. Baker Oct 31 p 41
You can Cut Costs Through Tight Inventory Control, by K. W. Bennett, Sept 12 p 83

Isotopes

Radioisotopes: Use them on Tough Problems, by C. M. Crompton, Oct 17 p 111

J

Jigs, Fixtures

Alumina Puts Hot Work in Harness, Dec 12 p 138
Paste Filler Metal Gives Dip Brazing a Boost, by A. M. Setapen, Sept 12 p 136

Joining

New Ultrasonic Welder Takes on Production Joy, Nov 28 p 86
New Weld Method Joins Spaced Metal Sheets, July 25 p 100
Paste Filler Metal Gives Dip Brazing a Boost, by A. M. Setapen, Sept 12 p 136
Speeds Pipe Joining, Dec 12 p 154

K

Kaiser Aluminum & Chemical Corp.:

Pre-Planning Benefits New Mill, by G. J. McManus, Dec 26 p 22

L

Labor

Anti-SUB State Laws Haunt Labor, Aug 22 p 75
Can SUB Conflict be Resolved? Aug 29 p 22
If you Need Help in Personnel, July 18 p 80
Keep an Eye on Labor Trend, Nov 14 p 129
Labor's New Problems They'll Affect your Bargaining, by Tom Campbell, Sept 5 p 67
Labor Unions: Clean up or else, by G. H. Baker, Sept 19 p 121
Labor Unrest Spreads in Detroit, by H. R. Neal, Dec 5 p 108
Labor Wants Probing to End, by G. H. Baker, Aug 29 p 47
Layoffs Spread as Output Drops, Dec 19 p 102
The Outlook for new Labor Laws, by G. H. Baker, Oct 10 p 95
There's no Easy Way out of Skilled Labor Shortage, Oct 17 p 71
What Workers Read in Union Papers, Aug 8 p 44

Labor, see also INDUSTRIAL RELATIONS

Labor, Wages

Foreman Gets Feature Billing, July 25 p 74
Fringe Benefits Cost still Climbing, Dec 19 p 97
Higher Wages Hit all Industry, July 11 p 59
How Indiana SUB Plan Works, by G. J. McManus, Oct 24 p 170
Labor's Next Five-Year Plan, by T. M. Rohan, Oct 10 p 82
Reach Agreement on SUB Payments, Sept 5 p 78
Why Labor Likes its Overtime, Sept 19 p 115
Why Steel Price Had to Go up, by J. B. Delaney, July 4 p 38
Will Neither Barter Short Week? By H. R. Neal, Aug 8 p 56

Ladle

Ladle is Light, Sept 5 p 158

Leasing, see Defense; Machine Tool Industry

Legislation

Door is Closed to Extra Funds, by G. H. Baker, Oct 17 p 99
Freight Angle in Merger Battle, Sept 26 p 78
Monopoly Report may Fizzle out, by G. H. Baker, July 25 p 89
The Outlook for new Labor Laws, by G. H. Baker, Oct 10 p 95

Lithium

Ceramic Coatings Raise Heat Resistance of Super-Alloys, by P. A. Huppert, Nov 14 p 157
Lithium Climbs out of Obscurity, by G. G. Carr, Oct 10 p 80

Lubricants

A New Way to Select Wear-Resistant Materials, by J. R. Driear, Nov 21 p 121
Central Spray Lube, Sept 19 p 176
Check-Out Big Engines in Minutes, July 25 p 105
Cutting Oil, Sept 5 p 143
Die Lubricant Improves Metal Flow, Nov 14 p 182
Electronics Lube, Aug 1 p 121
Moly-Sulfide Smooths Scissors Output, July 11 p 137
Oil Additives, July 4 p 105
Spray Lubricates Extrusion Dies Faster, Aug 29 p 70
Uses one Lubricant for all Operations, Nov 7 p 152

M

Machinability

Add Copper to Make Steel Bars more Machinable, Aug 22 p 112
Cold Reduction Saves Time, Cuts Waste, Oct 17 p 122
Lead in Cast Steel: How Much Does Machinability Improve? By W. J. Phillips & D. B. Barron, Aug 15 p 102

Machine Tool Industry

Big Tool Deliveries Stepped up, Aug 8 p 42
Builder Predicts Fall Spurt, by E. J. Egan, Jr., Aug 8 p 65
Company Show Draws Prospects, by E. J. Egan, Jr., Oct 24 p 187
Drive to Educate Public Begins, by E. J. Egan, Jr., Dec 12 p 115
German Sales Lose some Steam, by E. J. Egan, Jr., Aug 15 p 77
Defense Dept. Studies Ford Plan, by E. J. Egan, Jr., Sept 26 p 101
Distributors Push Sales Drive, by E. J. Egan, Jr., Oct 3 p 78
How to Encourage Machine Tools, by E. J. Egan, Jr., July 11 p 80
Lease for Cash, or Cut Prices? By E. J. Egan, Jr., Aug 1 p 77
Machine Tool Layaway Program, by R. O. Schulin, July 11 p 60
New Orders Slump to 7-Year Low, by E. J. Egan, Jr., Dec 5 p 117
ODM Stiffens Tool Leasing Plan, by E. J. Egan, Jr., Oct 17 p 103
Sales of Imported Tools Climb, by E. J. Egan, Jr., Nov 14 p 139
Selling Job Ahead for Builders, by E. J. Egan, Jr., Nov 7 p 105
Small Orders Take up the Slack, by E. J. Egan, Jr., Sept 12 p 109
Tool Rental Rates Stir Protests, by E. J. Egan, Jr., July 4 p 61

Machine Tools

Fast, Accurate Band Machining Avoids Chip Waste, Dec 26 p 49
How to Speed up Die Changes, by E. J. Egan, Jr., July 25 p 93
If you Use Electronic Controls, by E. J. Egan, Jr., Nov 21 p 107
New Look at Future Machining, by E. J. Egan, Jr., Oct 10 p 99
Numerical vs. Tracer Controls, by E. J. Egan, Jr., Dec 19 p 119
Oscillating Shear Cuts Angles in Coil Stock, by E. T. P. Plimpton, Jr., July 4 p 78
Punch Cards Control Jig Borer, Dec 26 p 54
Racks Boosts Transfer Line's Efficiency, Nov 7 p 158
Shaves Teeth, Deburrs Gear Old at Same Time, Aug 15 p 121
Slugging Speeds Small-Lot Output of Precision Parts, July 18 p 116
Special Small-Parts Shop Unties Production Tangle, by N. E. Heath, Oct 10 p 113
Tape Controls Aim at Short Runs, by E. J. Egan, Jr., Oct 31 p 45
Taps Remote Blind Hole with Ease, Sept 12 p 160
Two-Dimensional Unit Speeds Tracer Work, Nov 14 p 187

Machine Tools, see also Automation

Machine Tools, Drilling

Automation Devices Give Flexibility to Transfer Line, July 11 p 108
Extra Drill Saves Time, Nov 21 p 152
High-Speed Drilling ups Part Production, Aug 15 p 108
New Tool Does Job of Three, by E. J. Egan, Jr., Nov 28 p 85
New Twist for Tough Drill Jobs, by E. J. Egan, Jr., Sept 19 p 125
Sight Gage Checks Gundrill Cutting Edges, Oct 3 p 106
Single-Spindle Unit Drills Bolt Circle, Nov 14 p 195
Special Setups Mass-Produce Accurate Holes, Oct 3 p 105

Machine Tools, Grinding

Grinds Complex Form in Aluminum Pistons, Dec 5 p 156
Speeds Grinding, Sept 26 p 152

Machine Tools, Lathes

Constant Surface Cutting Speed Saves Time and Tools, July 18 p 124
Slide Tool Tackles Tracer Problems, Sept 26 p 150
Trepanning: Faster Holes with Fewer Chips, by E. J. Egan, Jr., Aug 15 p 91

Machine Tools, Milling

Automation Devices Give Flexibility to Transfer Line, July 11 p 108
Grinder Finishes Big Worm Gear, Nov 7 p 160
Insert Tools Cut Costs, Aug 22 p 127
Maintenance Men Build Miller from Planer, Nov 7 p 148

Machinery

Machine Brushing Strengthens Large Parts, Nov 14 p 165
New Machine Doubles Cold Heading Output, July 18 p 119
Tracer Device Locates Punched Holes from Blueprints, Nov 28 p 85

Machinery, Agricultural

Farm Facelift Aids Metal Sales, by R. R. Kay, Nov 7 p 103
Farm Machine Picture Brightens, by K. W. Bennett, Dec 5 p 98

Machinery, Die-Casting

Integrated Line Hikes Diecasting Output, by W. G. Patton, July 4 p 86

Machinery, Presses

A Good Way to Start a Debate, by E. J. Egan, Jr., Aug 22 p 85
Choice of Stock Cuts Scrap Loss, by Herbert Chase, Nov 28 p 90
Continuous Press Line Marks Big Advance in Forming, by W. G. Patton, July 18 p 111
Forger Has Side Rams, July 18 p 110
Forging Press Features Large Capacity, Nov 14 p 180
Gap Press Stands Long Service, Nov 14 p 184
How a New Product Developed From Idea to Market, Dec 5 p 91
How Big Press Cuts B-52 Costs, Aug 29 p 24
How to Speed up Die Changes, by E. J. Egan, Jr., July 25 p 93

New Method Cuts Cost of Short Run Stamping, Oct 3 p 93
Powder Metal Press Gets Uniform Density in Odd Shapes, Dec 26 p 56
Press Brake Forms Unique Dome Sheets, Nov 21 p 154
Press Design Speeds Die Changing, July 11 p 122
Presses will Expand with Body Designs, Nov 7 p 158
Punch Press Shearing Reduces Scrap, Nov 7 p 156
Replaces Two Presses, July 18 p 152
Stamping Press Forms 2000 Parts an Hour, Sept 12 p 154
Surfacing with Stainless Prevents Pit Corrosion, by J. A. Rau, July 18 p 120
Vacuum Lift Speeds Handling of Sheets on Turret Punch Press, by E. J. Egan, Jr., Aug 15 p 94

Machinery, Presses, see also Presswork

Machining

Automation Devices Give Flexibility to Transfer Line, July 11 p 108
Building-Block Line Handles Various Shaft Sizes, by R. H. Echelman, Nov 28 p 82
Can you Machine Missile Hardware? By E. J. Egan, Jr., Nov 7 p 121
Chemical Milling Speeds Output, Sept 26 p 159
Chemical Milling Tank Tapers 55-ft Parts, Oct 3 p 120
Constant Surface Cutting Speed Saves Time and Tools, July 18 p 124
Fast, Accurate Band Machining Avoids Chip Waste, Dec 26 p 59
Ferrous Metals: How to Get More for your Metalworking Dollar, Number 10 of a Series, July 25 p 113
High-Speed Drilling ups Part-Production, Aug 15 p 106
Make Assembly Part of Design, by E. J. Egan, Jr., July 18 p 97
Milling Titanium Alloys: Experience Modifies Thinking, by A. L. Winkler, Oct 10 p 126
New Look at Future Machining, by E. J. Egan, Jr., Oct 10 p 99
New Spiral Point Boosts Twist Drill Efficiency, Oct 17 p 115
New Theory Bolsters Grinding Research, by P. M. Unterweiser, Sept 12 p 127
One Machine Does Work of Four in half the Time, Oct 3 p 108
Powdered Metal Tool Bodies Boost Machining Efficiency, by Horace Frommelt, Nov 14 p 166
The Winner: Numerical Controls, by E. J. Egan, Jr., Sept 5 p 93
Tough Alloys Stump the Experts, by E. J. Egan, Jr., Dec 26 p 41
Tracer Controls Change a Job Shop's Outlook, by J. E. Dillon, Sept 26 p 128
Training Program Gears Workers to Tape Control Concept, Nov 7 p 130
Ways to Make Copper and Brass Pay off, Sept 5 p 122

Magnesium

Holds Market Gains, Sept 5 p 73
Magnesium gets set for Sales Drive, Oct 24 p 167
Welds Magnesium Continuously, July 11 p 132

Magnets

De Motors Employ Ceramic Magnets, Oct 3 p 123

Maintenance

Belts Solve Foundry Maintenance Worry, Sept 12 p 157
Better Maintenance Demands a System, by E. R. Happel, Aug 5 p 87
Constant Surface Cutting Speed Saves Time and Tools, July 18 p 124
Industry Goes for Paper Wipers, Aug 1 p 58
Machine Tool Layaway Program, by R. O. Schulin, July 11 p 60
Maker Offers Hints on Gage Block Care, Oct 10 p 143
Paper Wipes Clean, Aug 1 p 119
Prevent Electrical Failures: it Pays its Own Way, by L. E. Johnston, Dec 19 p 137
Repair 2200-ft Rip in Conveyor Belt, Nov 14 p 193
Roof Compound Paints on with Brush, Sept 5 p 142
Thread Inserts Keep Scrap Heap Small, July 11 p 128
What Makes a Tool Trouble Man? Aug 22 p 99

Management

Diversification: Is it always the Answer? By J. E. Martin, Oct 3 p 53
Foreman Gets Feature Billing, July 25 p 74
How to Build Good Communications, Aug 29 p 43
How to Cut Costs on Patterns and Cores, by R. B. Sinclair & W. N. Richards, Dec 12 p 132
How to Pick that Second Man, by Alfred M. Cooper, Sept 5 p 76
How to Plan for Lower Costs, No. 9 of a series, Dec 12 p 97
How to Plan New Products, No. 8 of a Series, Oct 17 p 85
How Smaller Firms Can Make Sales Forecasts, by P. J. Sandmaier, Oct 31 p 21
Memo to Management: Traffic Planning Can Cut Costs, by G. J. McManus, July 11 p 55
More Marketing Sense is Needed, Aug 8 p 55
Pay is Good for Top Steel Men, Sept 5 p 75
Photos Answer Stock Questions, Dec 26 p 23
Pre-Planning Benefits New Mill, by G. J. McManus, Dec 26 p 22
Six Steps toward Strengthening your Market Position, Nov 7 p 79
Success in Business Takes More than Urge to Get Ahead, by Benjamin F. Fairless, July 4 p 34
What Makes a Tool Trouble Man? Aug 22 p 99
Where to Start Cutting Costs, Sept 19 p 103
You can Cut Costs Through Tight Inventory Control, by K. W. Bennett, Sept 12 p 83
You Can Help Your Purchaser do a Better Job, by P. J. Cather, Oct 10 p 73

Marketing

A Look at Motivation Research, Aug 1 p 67
How a New Product Developed: From Idea to Market, Dec 5 p 91
How Smaller Firms Can Make Sales Forecasts, by P. J. Sandmaier, Oct 31 p 21
Six Steps toward Strengthening your Marketing Position, Nov 7 p 79
Unique Program Sells more Pipe, by T. M. Rohan, Sept 26 p 80
West is Economically Robust, by R. R. Kay, Aug 22 p 83

Marketing, see also Forecasting: Management

Marking Equipment

Three Low-Cost Ways to Mark Metals Permanently, by R. A. Botosan, Sept 26 p 122

Martin Co.:

Milling Titanium Alloys: Experience Modifies Thinking, by A. L. Winkler, Oct 10 p 126

Material Handling

Belts Solve Foundry Maintenance Worry, Sept 12 p 157
Better Handling Cuts Heat Treat Rejects, Aug 1 p 116
Blend Dry, Pulverized Materials Accurately, Nov 21 p 162
Conveyor, Press Brake Speed up Output, Sept 12 p 157
Fork Truck Puts Order in Scrap Yard, July 25 p 104
Giant Speeds Unloading, Sept 12 p 161
Gripper Jaws Unload Panels Efficiently, Safely, by Herbert Chase, Dec 12 p 130
Handling Units Speed Foundry Cycle, Dec 5 p 124
How to Airlift Heavy Equipment, Nov 14 p 117
How to get the most from Tow Handlers, Dec 19 p 161
Interfloor Conveyors Move Unitized Loads Faster, by W. L. Engler, Sept 26 p 119
Magnetic Belt Prevents Part Damage, Nov 14 p 194
Plan Boosts Small Company Profits, Oct 24 p 172
Plant Modernization: Money Alone Won't do it, by R. H. Echelman, Dec 19 p 133
Self-Dumping Hoppers Speed Scrap Handling, Dec 19 p 148
Slag Handlers Slash Maintenance Time, Aug 15 p 122
Steel Conveyor Belts Resist Wear of Metal Parts, Aug 29 p 72
Truck Charges Cupola, Sept 12 p 158
Truck Handles Hot Slag, July 25 p 110
Vacuum Lift Handles Tank Heads Easily, Sept 12 p 156

Materials

A New Way to Select Wear-Resistant Materials, by J. R. Driear, Nov 21 p 121
Alumina Puts Hot Work in Harness, Dec 12 p 138
Carbon Linings Stand up to Long Furnace Campaign, Aug 29 p 74
Cut out Dust, Fumes, Let in Light, July 25 p 109
Die-Surface Coat, Sept 5 p 142
Enamel on Stainless: Combination for Strong Walls, Dec 5 p 139
Flux Penetrates, Oct 3 p 123
Hose Resists Chemicals, Nov 7 p 163
Improves Nylon Balls, Dec 5 p 139
Molded Carbon, Nov 7 p 165
Paste Filler Metal Gets Dip Brazing a Boost, by A. M. Setapen, Sept 12 p 136
Pure Silicon, Sept 5 p 143
Repairs Floors, Sept 5 p 144
Steel Floors Smooth, Sept 5 p 132
Thermostat Metal, Sept 12 p 161

Mergers, see Legislation

Metallurgy

Boron Rids Steels of Stretcher Strains, by P. M. Unterweiser, Aug 8 p 79
Crystals Key in New Corrosion Theory, Nov 14 p 120
Discuss Atom Metals, Oct 3 p 139
Heat Blocks Way to Faster Aircraft, Oct 17 p 75
Higher Vanadium Improves Hot Strength of Low Alloy Steel, by Paul Stubinitan & J. R. Lane, Aug 1 p 91
Meteorites: Metallurgy from Outer Space, by P. M. Unterweiser, Dec 5 p 131
New Magnetic Steel Claims Greater Efficiency, Oct 31 p 68
Read Spectrograph Directly for Rapid Analysis, Sept 26 p 124

Metallurgy

Studies Impurities, Dec 19 p 159
Study Deformation by New Method, Aug 22 p 126
West Still Leads in Steel Output but Reds Gain Technically, Dec 26 p 19
Western Research Aids Metals, by R. R. Kay, July 18 p 95
World Metallurgical Congress Meets, Oct 24 p 232

Metalworking Industries

Candidates for a Sales Call, by R. R. Kay, Sept 5 p 91
Don't Sell the West Coast Short, by R. R. Kay, Nov 14 p 137
How to Get more for your Metalworking Dollar, Number 10 of a Series, Machining, July 25 p 113
Number 11 of a Series, Copper and Brass, Sept 5 p 115
Number 12 of a Series, Heat Treating, Oct 24 p 207
Is your Scrap Loss too High? Nov 28 p 78
Know the New Western Markets, by R. R. Kay, July 4 p 59
1958 Business Still Looks Good, by G. G. Carr, Sept 26 p 83
West is Economically Robust, by R. R. Kay, Aug 22 p 83
What Will your Industry be like in the Year 2000? Oct 24 p 161

Meteorites, see Metallurgy

Milling

Firm Chemical Mills Nine-Step Part, Nov 7 p 160

Missiles, see Aircraft Industry: Defense

Molding, Molds

Combined Methods Lick Casting Problems, Sept 19 p 145
Shell Mold Compound, Nov 7 p 163
Shell Molding ups Quality, Nov 7 p 161

N

National Lead Co.:

Radioisotopes: Use them on Tough Problems, by C. M. Crompton, Oct 17 p 111

Nickel

Copper-Base Alloy Compares with Nickel Silver, by C. H. Hannon, Nov 21 p 134
Inco Project Rolls Back North Frontier, by G. F. Sullivan, Oct 31 p 26
Nickel Outlook Good; Signs Point to End of Famine, by F. J. Starin, Aug 15 p 51

Nonferrous Metals

Dissolves Tin in Germanium, Sept 26 p 146
Floating Zone Refines Materials, Aug 15 p 116
How to Get More for your Metalworking Dollar, Number 11 of a Series, Copper and Brass, Sept 5 p 115
Inco Project Rolls Back North Frontier, by G. F. Sullivan, Oct 31 p 26
Lithium Climbs out of Obscurity, by G. G. Carr, Oct 10 p 80
Magnesium Holds Market Gains, Sept 5 p 73
New Beryllium Plant Gets Going, Aug 8 p 45
New Lead Market has Potential, Aug 8 p 46
Purifies Metals, Sept 26 p 152
Special Metals Company Formed, Sept 12 p 88
What to do about Metal Fires, Nov 21 p 128
Zinc, Lead Will Go it Alone, July 11 p 84

Nonferrous Metals, see also individual Metals

Nonferrous Metals, Bending & Forming

Aluminum T-Inserts Save Space, Nov 28 p 42
How Big Press Cuts B-52 Costs, Aug 29 p 24
How to Get More for your Metalworking Dollar, Number 11 of a Series, Copper and Brass, Sept 5 p 115
Milling Titanium Alloys: Experience Modifies Thinking, by A. L. Winkler, Oct 10 p 126

North American Philips Co.:

Speed Alloy Analysis by X-Ray Method, by V. W. Paden, Oct 17 p 120

O

Oil Field Equipment

Cut Weight, Keep Strength, Aug 15 p 131
Imports Hit Oil Country Market, by K. W. Bennett, Nov 21 p 90

Ore, Ferrous

Low-Cost Method Strengthens Iron Ore Pellets, Nov 21 p 130
Ore Surplus Indicated for 1958, by T. M. Rohan, Dec 26 p 24
Reviews Ore Reducing, Sept 19 p 175
Uneava Bay Project Makes Headway, Sept 26 p 77

Oxygen

Generate Own Oxygen or Purchase it? Sept 19 p 178

How O. Plant Works, Sept 19 p 178
How Steel Figures Oxygen Costs, Oct 3 p 57
How to Make Oxygen Cutting do More Jobs, by Carl Underwood, Aug 29 p 63
J. & L. Starts up Oxygen Steel Unit, Dec 12 p 87
Steel Expansion Plans Stress Economy as Costs Mount, by G. J. McManus, Sept 19 p 99

P

Packaging

Air Tacker Improves Wrapping Setup, July 18 p 144
How Good Packaging Can Help Sell your Product, by Gerald Stahl, Aug 8 p 39
Mobile Strapper Speeds Coil and Sheet Handling, July 11 p 110

Paints & Painting

Flow Coat Paint for Ease and Safety, Dec 12 p 136
Ford Water Paint Aids Safety, by H. R. Neal, July 25 p 84
Get Better Finishes for Less with Hot Paint Spray, by W. G. Patton, Aug 1 p 104
Line Paint Stampings, Aug 22 p 128
Paint Resists Water, Severe Abrasion, Aug 1 p 120
Paint While Working, July 1 p 104
Resists Exposure, Dec 12 p 148

Paints & Painting, see also Cleaning & Finishing

Paperwork, see Data Processing; Management

Pickling

Sensible Pickling Can Save Dollars, Sept 19 p 175

Pig Iron

Lime Powder Desulphurization Proves Practical, Efficient, Oct 31 p 66

Pipe, Tubes

Aluminum Pipe Wins Farmer, Aug 22 p 62
Automatic Spray Boosts Core Mold Output, July 11 p 102
Business is Good, but Linepipe Market Develops Leaks, by T. M. Rohan, Dec 19 p 97
Canadian Tube Mill, July 25 p 110
Press-Form Metal Tubing with Simple Dies, by Federico Strasser, Dec 12 p 127
Rapidly Produces Tube, Nov 7 p 147
Unique Program Sells more Pipe, by T. M. Rohan, Sept 26 p 80

Plant Equipment

Air Conditioners Stalk Industry, Dec 5 p 100
Builds Big Evaporator for Aluminum Plant, Dec 12 p 153
Closed Cell Rubber Cuts Condensation, Dec 5 p 160
Cylinders get Thicker, Dec 5 p 159
Gas Generator Sales Booming, Dec 12 p 91
How do you Decide what to Buy? Dec 19 p 101
Industry Goes for Paper Wipers, Aug 1 p 58
It Pays to Keep Weighing Scales Accurate, July 4 p 90
Keep Plant Air Clean Electronically, Oct 3 p 100
Molten Slag's Heat Doesn't Harm Panes, Nov 21 p 164
Rush is on for Leased Trucks, by K. W. Bennett, Oct 3 p 62
Shop Towel Doubles as Apron, Wiper, Nov 7 p 157
Tossout Work Clothes like Paper Wipers, Dec 19 p 163
Travelling Hood Exhausts Ingot Fumes, Aug 22 p 102

Plant Equipment, see also Safety

Plant Layout

Bearing Plant Design Pays off, by T. M. Rohan, Sept 19 p 107
High Output and Flexibility Can go Together, Aug 1 p 96
Indexing Dip Setup Saves Plant Space, Aug 29 p 78
Installs Big Unit in Crowded Shop, July 18 p 136
Plant Modernization: Money Alone Won't do it, by R. H. Echelman, Dec 19 p 133
Vertical Expansion Raises Treatment Rate, by A. E. Uhleen & E. A. Stockbower, July 18 p 114

Plant Location

Memo to Management: Traffic Planning Can Cut Costs, by G. J. McManus, July 11 p 55
Why Lincoln Located at Wixom, by H. R. Neal, Sept 12 p 100

Plastics

Builds Big Vessel, Dec 19 p 162
Hood Withstands Corrosive Gases, Nov 14 p 184
Molten Slag's Heat Doesn't Harm Panes, Nov 21 p 164
New Process Makes Nylon Coatings Possible, Nov 14 p 160
Plastic Ball Bearings Compete with Steel, by William Cayzan, Oct 10 p 116
To Save: Mix your Own, Aug 22 p 128
Why Toyland Leans to Plastics, by G. G. Carr, Dec 19 p 98

Plastics, see also Ceramics; Materials

Plates, Sheets, Strip

Boom Rids Steels of Stretcher Strains, by P. M. Unterweiser, Aug 8 p 79
Enameled Strip Solves Problems, Aug 15 p 117
New Process Rolls Wide Alloy Sheets, Dec 26 p 21
Rolls Thin Strip, Oct 17 p 126
Slit-Thin Strip, Aug 1 p 119
Wider Aluminum Sheets Emerge from Specialty Class, Dec 5 p 96
Z-Mill Rolls Small Orders, July 18 p 122

Pollution, Air

Dust Collector Puts Dirt in Packages, Aug 29 p 79
Kaiser Steel Delivers Knockout to Smoke, Dec 12 p 133
Keep Plant Air Clean Electronically, Oct 3 p 100
Scrap Refinery Controls Smoke with Water Scrubber, by L. Bykowski, Aug 15 p 96
Travelling Hood Exhausts Ingot Fumes, Aug 22 p 102

Porcelain Enamel

Enamel on Stainless: Combination for Strong Walls, Dec 5 p 139
Enameled Aluminum Catches on, July 4 p 41
New Lead Market has Potential, Aug 8 p 46

Powdered Metals

Aluminum Powder Arrives, July 25 p 76
Deposits Metals Fast, Nov 28 p 164
Powder Metal Press Gets Uniform Density in Odd Shapes, Dec 26 p 56
Strengthen Powdered Iron Parts with Steam, by F. L. Spangler & M. E. Lackey, Aug 1 p 98

Power

Convert Electricity Direct from Heat, Dec 12 p 142
Deep Draw Disk for One-Piece Gas Container, Oct 10 p 122
Electricity from Gas, Sept 26 p 156
Meet the Portable Generator, by K. W. Bennett, Aug 22 p 68
Mill Power Plants Get Bigger, Better, Sept 19 p 182
Steel Shares Natural Gas Boom, by R. R. Kay, Sept 26 p 99
Will Electric Cars Come Back? By H. R. Neal, Dec 26 p 32

Power, see also Atomic Energy

Power Transmission

Belt Drives with no Slip, July 25 p 102

Presswork

Continuous Press Line Marks Big Advance in Forming, by W. G. Patton, July 18 p 111
Embossed Steel Strip, Nov 7 p 165
Gripper Jaws Unload Panels Efficiently, Safely, by Herbert Chase, Dec 12 p 130
How Press and Weld Steps Form Sheet Metal Units, by Herbert Chase, Dec 19 p 40
How to Remedy Defects in Drawn Shells, by Federico Strasser, Nov 21 p 125
New Method Cuts Cost of Short Run Stamping, Oct 3 p 93
Oscillating Shear Cuts Angles in Coil Stock, by F. T. P. Plimpton, Jr., July 4 p 78
Press-Form Metal Tubing with Simple Dies, by Federico Strasser, Dec 12 p 127

Prices

Bethlehem Next in Price Probe, Oct 10 p 75
Get Ready for Price Escalator, by G. H. Baker, Aug 1 p 73
Inflation Getting Close Watch, by G. H. Baker, Sept 12 p 105
Most Prices now Based on Cost, July 4 p 51
Price Probe on again, Oct 31 p 25
Price Probers Draw Bead on Steel, July 18 p 73
Steel Industry Wins First Round, by J. R. Delaney, Aug 15 p 54
Steel Probe Limps Toward Recess, Aug 29 p 24
Steel Takes its Case to Congress, by G. J. McManus, Aug 1 p 56
Think Competitively when you Price, Dec 19 p 90
U. S. Steel Fights with Facts, Aug 22 p 64
Why Steel Prices Had to Go up, by J. R. Delaney, July 4 p 38

Prices, see also Steel Industry

Purchasing

Business Booms for Production Warehouses, by T. M. Rohan, Nov 28 p 41
How do you Decide what to Buy? Dec 19 p 101
Purchasing Agents are Playing it Close to the Vest, by K. W. Bennett, Sept 26 p 75
You Can Help Your Purchaser do a Better Job, by P. J. Cathey, Oct 10 p 73

R

Railroad Equipment

Heating Setup Thaws Ore Cars Rapidly, Aug 15 p 127
How Alco Does it with Models, Aug 22 p 67
Railroads Ask Federal Financing, Aug 1 p 60
Railroads Look Over New Passenger Car Advances, by R. O. Schulin, Aug 29 p 19
Stainless Hopper Cars Stand Long Service, by J. Halbig & R. K. Thompson, Oct 17 p 188
Weighs Uncoupled, Moving Freight Cars, Nov 21 p 150

Refractories

How to Get Refractory Orders, Aug 1 p 75
New Refractory Setup Cuts Furnace Delays, Oct 17 p 130

Roads

Construction Equipment Makers Hope Worst is over, by K. W. Bennett, Aug 15 p 58
U. S. Road Program Gains Speed, by G. J. McManus, Nov 28 p 4

Rolling Mills

Checks Rolling Chore, Sept 26 p 156
New Mill will Roll Superalloys, Nov 21 p 85
New Process Rolls Wide Alloy Sheets, Dec 26 p 21
Strip Headaches Can be Solved, Sept 19 p 181
Warehouse Helps Customers With Small Rolling Mill, Nov 28 p 88
Wider Aluminum Sheets Emerge from Specialty Class, Dec 5 p 96
Z-Mill Rolls Small Orders, July 18 p 122

Rubber

Closed Cell Rubber Cuts Condensation, Dec 5 p 160

S

Safety

Asphyxia: Are you Ready for a Crisis? By J. B. Dunne, Aug 22 p 108
Color Weld Helmets Identify Welders, Sept 26 p 148
Cut out Dust, Fumes, Let in Light, July 25 p 109
Dust Collector Puts Dirt in Packages, Aug 29 p 79
Flow Coat Paint for Ease and Safety, Dec 12 p 136
Ford Water Paint Aids Safety, by H. R. Neal, July 25 p 84
For Safety—Bright Colors, Aug 15 p 124
Guards Against Fumes, Sept 26 p 144
How Engineers Cut Auto Noises, by H. R. Neal, Aug 1 p 68
How to Cut your Accident Rate, by K. W. Bennett, Nov 7 p 81
How to Dispose of Cyanide Plating Wastes, by R. H. Robbins, Nov 28 p 92
How to Put out Fires, July 25 p 107
Lightning is Threat, Nov 7 p 157
Noise Irks Workers, Causes Damage, Sept 19 p 181
Plant Safety Vehicles Meet Emergencies, Sept 5 p 133
Prevent Electrical Failures: it Pays its Own Way, by L. E. Johnston, Dec 19 p 137
Prevent Lighting-Off Explosion with Safety Controls, by J. B. Smith, Nov 7 p 134
Take Care when Using Coated Abrasives, Nov 7 p 159
Tossout Work Clothes like Paper Wipers, Dec 19 p 163
Travelling Hood Exhausts Ingot Fumes, Aug 22 p 102
Unsafe Cars are Growing Menace, by H. R. Neal, Sept 5 p 84
What to do about Metal Fires, Nov 21 p 128
Will Detroit Buy a Safety Car? By H. R. Neal, Nov 7 p 96
Woven Wire Backstop Halts Flying Chips, Dec 19 p 160

Safety, see also Automobiles & Trucks; Plant Equipment

Science & Research

A Look at Motivation Research, Aug 1 p 67
Is Russia Pulling Ahead in Race for Technical Leadership? Nov 14 p 113
Steelmaking Plans for Tomorrow, by P. M. Unterweiser, Sept 19 p 139
Western Research Aids Metals, by R. R. Kay, July 18 p 95
What about a Dept. of Research? By G. H. Baker, Nov 14 p 135
What Will your Industry be like in the Year 2000? Oct 24 p 161

Scrap

Choice of Stock Cuts Scrap Loss, by Herbert Chase, Nov 28 p 90
Is your Scrap Loss too High? Nov 28 p 18
Scrap Refinery Controls Smoke with Water Scrubber, by L. Bykowski, Aug 15 p 96
Self-Dumping Hoppers Speed Scrap Handling, Dec 19 p 148
Unit Burns Scrap Autos at Production Rates, Dec 26 p 67

Shipbuilding
- Aluminum Woos Shipbuilders, by F. J. Starin, Dec 12 p 88
- New Life for Coast Shipyards, by R. R. Kay, July 11 p 78
- Shipyards Seek Non-Marine Jobs, by R. R. Kay, Dec 12 p 113

Solar Energy, see Power

Soldering
- Automation Breeds New Problems, by H. J. McGarvey & G. P. McKnight, Aug 15 p 104
- Solder Aluminum without Flux, Nov 7 p 133
- Tube Aids Soldering, Nov 21 p 164

Stainless Steel
- Armco has New Stainless Steel, Sept 12 p 89
- Diffusion Process Makes Plain Carbon Sheet Stainless, Nov 7 p 128
- Enamel on Stainless: Combination for Strong Walls, Dec 5 p 139
- Etch Stainless Plaques Quickly and Profitably, Sept 12 p 132
- How to Make 17-7 PH Honeycomb Panels, by P. M. Allen, July 11 p 99
- Metal Wall Research, Dec 5 p 99
- Rolls Big Plate of 17-4 PH Stainless, Oct 3 p 122
- Supersonic Speeds Need Steel, by T. M. Rohan, July 25 p 70
- Surfacing with Stainless Prevents Pit Corrosion, by J. A. Rau, July 18 p 120
- Tank Trucks Ride Stainless Trend, July 18 p 77
- Tips on Heat Treating Stainless, Oct 24 p 217
- Tips on Welding Stainless, by H. F. Reid, Jr., Dec 26 p 58
- Tips on Machining Stainless, How to Get More for your Metalworking Dollar, Number 10 of a Series, July 25 p 114

Stamping, see Machinery, Presses; Presswork

Stanford Research Institute
- Cladding on Carbon Steel Opens new Fields to Titanium, by R. C. Bertossa, Oct 31 p 59

Steel, Bending & Forming
- Boron Rids Steels of Stretcher Strains, by P. M. Unterweiser, Aug 8 p 79
- Continuous Press Line Marks Big Advance in Forming, by W. G. Patton, July 18 p 111
- Deep Draw Disk for One-Piece Gas Container, Oct 10 p 122

Steel Industry
- Ailing Mill Gets a Transfusion, Dec 12 p 86
- Avery Adams Makes his Move, by G. J. McManus, July 25 p 72
- Coast Steel Buying Sets Record, Nov 28 p 63
- Coast Steel Buying Will Slide, by R. R. Kay, Dec 26 p 39
- Grace Steps down, Homer Succeeds, Nov 7 p 90
- Humphrey Returns to Business Wars, Nov 7 p 85
- J. & L. Starts up Oxygen Steel Unit, Dec 12 p 87
- Layoffs Spread as Output Drops, Dec 19 p 102
- Price Probers Draw Bead on Steel, July 18 p 73
- Second Quarter Earnings Dip, Aug 8 p 48
- Sharon Steel Head Steps Down, Sept 12 p 87
- Steel Expansion Plans Stress Economy as Costs Mount, by G. J. McManus, Sept 19 p 99
- Steel Heading into Fall Upturn, by G. J. McManus, Sept 12 p 86
- Steel Industry Offers Paradox, Sept 19 p 174
- Steel Leader Weir Dies at 81, July 4 p 39
- Third Quarter Earnings Decline, Nov 7 p 83
- U. S. Steel Fights with Facts, Aug 22 p 64
- West Plans for Steel Upsurge, by R. R. Kay, Dec 5 p 115
- West Still Leads in Steel Output but Reds Gain Technically, Dec 26 p 19
- Why Southern Mills are Hurting, by G. J. McManus, Nov 14 p 121

Steel Industry, see also Prices

Steelmaking
- Analyze Steel Heats Quickly and Simply, Oct 17 p 123
- Cold Reduction Saves Time, Cuts Waste, Oct 17 p 122
- Is Steel Technology "Lagging"? Nov 7 p 82
- Lime Powder Desulphurization Proves Practical, Efficient, Oct 31 p 66
- Mills Use More Hot Metal in Steelmaking, by G. J. McManus, Nov 21 p 88
- New Hot Top Cuts Ingot Discard in Half, by William Czygan, Sept 12 p 123
- Special Bar Raises Killed Steel Yield, by R. G. Brown, July 4 p 89
- Steelmaking Plans for Tomorrow, by P. M. Unterweiser, Sept 19 p 139

Stockpiling
- Stockpile Policy Revamp Likely, Oct 31 p 28
- Stockpile Spending Fading away, by N. R. Regrimbal, Sept 26 p 81

Structural Steel
- High Strength Steels, July 4 p 105
- Pressure Eases on Fabricators, by R. D. Raddant, July 25 p 69

T

Tanks
- L-P Tank Makers Sad but Hopeful, July 11 p 62

Taxation
- Chances of Tax Cuts Fade Away, by G. H. Baker, Nov 7 p 101
- Congress Did a Lot of Talking, by G. H. Baker, Sept 12 p 91
- Congress Eyes Tax Cut in '58, by G. H. Baker, Aug 8 p 61
- Depreciation Study Progresses, by G. H. Baker, Sept 26 p 97
- Fast Tax-Am Revival is Sought, Dec 12 p 85
- Tax-Cut Climate is Improving, by G. H. Baker, Aug 22 p 81
- What to Do when the Tax Man Calls on you, by Tom Campbell, July 18 p 74
- Withholding Laws Face Tightening, July 25 p 75

Television
- Look for TV Sport in Last Half, by K. W. Bennett, July 4 p 40

Testing & Inspection
- Cadmium Plated Parts Pass Severe Tests, July 18 p 142
- Check-Out Big Engines in Minutes, July 25 p 105
- Electronic Signaller Reduces Quench-Cracking of Steels, by P. M. Unterweiser, Nov 28 p 59
- Fatigue Machine Tests Designs and Materials, Sept 12 p 134
- Firm Checks Fittings under Black Light, Dec 12 p 151
- Forgeability Tests: Are the Results Reliable? By P. M. Unterweiser, Nov 14 p 153
- How Defects Affect Tensile Strength of Light Alloy Castings, by Herman Mansfield, July 4 p 75
- How to Check Quality in Ferritic Nodular Iron, by Herman Mansfield, Aug 8 p 88
- Industry Looks at Thermal Image, Oct 17 p 76
- It Pays to Keep Weighing Scales Accurate, July 4 p 90
- Laboratory Simulates Production to Check Coatings, Aug 1 p 106
- Metering Device Checks Seats, Sept 26 p 161
- New Temperability Calculator, by Leonard Jaffe & Edward Gordon, Oct 24 p 227
- Pretesting Team Smooths Way for Production Changes, Oct 3 p 102
- Read Spectrograph Directly for Rapid Analysis, Sept 26 p 124
- Special Testing Helps Find Best Material, Dec 12 p 145
- Speed Tests Aluminum, July 11 p 130
- Technique Simplifies Materials Analysis, July 18 p 148
- Test Cell Simulates Altitude, Nov 14 p 183

Tinplate
- Backup Rolls Drive New Tinplate Mill, Aug 1 p 59
- Mills Expand Capacity to Fill Growing Tinplate Needs, by G. J. McManus, July 18 p 71

Titanium
- Cladding on Carbon Steel Opens new Fields to Titanium, by R. C. Bertossa, Oct 31 p 59
- Custom-Built Titanium Mill Begins Operation, Nov 21 p 156
- Develops Ti Alloy, July 25 p 103
- Form Thick Titanium Spheres by Hot Spinning, Dec 5 p 142
- How to Braze Titanium, by Harry Schwartzbart, Aug 1 p 100
- Milling Titanium Alloys: Experience Modifies Thinking, by A. L. Winkler, Oct 10 p 126
- Tests Titanium for Hydrogen Content, July 18 p 146
- Welds Ti Parts in Portable Bubble, Sept 26 p 142
- Will Titanium Beat Setbacks? By G. J. McManus, Sept 5 p 71

Tools
- How a New Product Developed — From Idea to Market, Dec 5 p 91
- Mobile Strapper Speeds Coil and Sheet Handling, July 11 p 110
- Powdered Metal Tool Bodies Boost Machining Efficiency, by Horace Frommelt, Nov 14 p 166
- Tool and Diemakers Watch Detroit, Nov 14 p 122

Tools, Cutting
- Bores Assembly Parts to Close Tolerances, Oct 17 p 126
- Ceramic Cutters are Small Shop Assets, Aug 15 p 119
- Chain Saws Add New Sales Links, Aug 8 p 47
- Grinds Spiral Point on Twist Drills, Dec 19 p 158
- Hidden Tool Cost Cut, July 11 p 136
- How to Make Oxygen Cutting do More Jobs, by Carl Underwood, Aug 29 p 63
- Machining Standard Steels, How to Get More for your Metalworking Dollar, Number 10 of a Series, July 25 p 122
- New Guide to Grinding Wheels, by E. J. Egan, Jr., Aug 29 p 51
- New Spiral Point Boosts Twist Drill Efficiency, Oct 17 p 115
- Pinking Machine Cuts Sponge Rubber, July 25 p 108
- Tiny Tool Solves Drilling Problem, Oct 17 p 128

Toys
- Why Toyland Leans to Plastics, by G. G. Carr, Dec 19 p 98

Trailers, see Automobiles & Trucks; Railway Equipment

Training Programs
- Aid to Education: What Industry Can do to Help, by G. Grant Carr, Dec 12 p 82
- Can we Get Enough Technicians? Oct 24 p 164
- Educators React to Ike's Appeal, Nov 21 p 84
- How to Pick that Second Man, by Alfred M. Cooper, Sept 5 p 56
- If you Use Electronic Controls, by E. J. Egan, Jr., Nov 21 p 167
- There's No Easy Way out of Skilled Labor Shortage, Oct 17 p 71
- Training Program Gears Workers to Tape Control Concept, Nov 7 p 130
- What Makes a Tool Trouble Man? Aug 22 p 99

Training Programs, see also Education

Transportation
- A Lake Port Gets Set for the St. Lawrence Seaway, by T. M. Rohan, Aug 22 p 59
- Memo to Management: Traffic Planning Can Cut Costs, by G. J. McManus, July 11 p 55

Trundle Consultants, Inc.:
- How to Plan for Lower Costs, No. 9 of a series, Dec 12 p 97

Tungsten
- Refines Ore Directly, July 18 p 143

Turbines
- Seek new Methods to Work Columbium, Nov 21 p 148
- Small Company Tackles Big Job, by H. R. Neal, July 11 p 72

U

Ultrasonics
- New Ultrasonic Welder Takes on Production Job, Nov 28 p 86
- Ultrasonic Probers Find Tube Flaws, Dec 12 p 146

U.S.S.R.:
- Is Russia Pulling Ahead in Race for Technical Leadership? Nov 14 p 113
- West Still Leads in Steel Output but Reds Gain Technically, Dec 26 p 19

V

Vacuum Deposition, see Cleaning & Finishing

Vacuum Metallurgy
- Big Gains in Vacuum Metallurgy, by G. G. Carr, July 4 p 43

Valves
- Ductile Iron Reduces Fire, Corrosion, Sept 5 p 137
- Hard to Reach Valves are Easy to Reach, Sept 26 p 158
- Induction Hardening Boosts Valve Output, Nov 7 p 153

Venezuela
- How you can Build a Market in Venezuela, by Tom Campbell, Nov 21 p 86

W

Wastes, Disposal
- How to Dispose of Cyanide Plating Wastes, by B. H. Robbins, Nov 28 p 92
- Unit Burns Scrap Autos at Production Rates, Dec 26 p 67

Wastes, Recovery & Utilization
- Two Tanks do Work of Ten in Surface Treatment, by C. J. Riddle, Aug 22 p 104

Water, Treatment
- Clean Plant Water at Low Cost, Dec 19 p 146

Weir, Ernest Tener
- Steel Leader Weir Dies at 81, July 4 p 39

Welded Construction
All-Welded Construction: Less Cost, Longer Life, Aug 22 p 124
Welding Speeds Bridge Construction, by William P. Douglas, Oct 10 p 124

Welding & Welding Machines
Automatically Welds Aluminum Pipeline, Oct 17 p 129
Electricweld at J & L, Sept 5 p 72
Gets Quality Welds Working one Side, Sept 12 p 158
New Ultrasonic Welder Takes on Production Job, Nov 28 p 86
Seam Welder Joins Aluminum Strips, Oct 17 p 131
Special Fixtures Speed Welding of Bulky Assemblies, Aug 8 p 82
Surfacing with Stainless Prevents Pit Corrosion, by J. A. Rau, July 18 p 120
Tips on Welding Stainless, by H. F. Reid, Jr., Dec 26 p 58
Tips on Welding Thick-Walled Vessels, Nov 14 p 162
UHF Resistance Welds Join Steel Tubing, Nov 7 p 150
Welding Method may Reduce Inspection Time, Costs, Oct 31 p 72
Welds Coiled Strip, Nov 14 p 195

Welding & Welding Machines, see also Joining

Weldments
Unique Cars Haul Slag, Aug 15 p 128

Wire
Gage Tightens Control of Wire Coating Process, Nov 21 p 132
Wire Makers Fight Import Challenge, Oct 3 p 55

Wrought Iron
Men Come; Men Go; Iron Puddling Goes on, July 18 p 150

X

X-Ray
Radiation Controls Foil Thickness, Nov 7 p 155
Speed Alloy Analysis by X-Ray Method, by V. W. Palen, Oct 17 p 120
Unit Speeds Foundry Analysis, Sept 5 p 132
X-Ray Unit Penetrates 20-in. Castings Fast, Nov 7 p 150

Z

Zinc
Zinc, Lead Will Go it Alone, July 11 p 64
Zinc Outlook Takes a Good Turn, Aug 15 p 60

Zirconium
Alloy Unit Taxes Special Welds, Nov 14 p 186

AUTHOR INDEX

JULY - DECEMBER 1957

A

Albrecht, A. S.:
Constant Surface Cutting Speed Saves Time and Tools, July 18 p 124

Allen, P. M.:
How to Make 17-7 PH Honeycomb Panels, July 11 p 99

B

Baker, G. H.:
Buying Spree Cheers Business, Oct 3 p 75
Chances of Tax Cuts Fade Away, Nov 7 p 101
Congress Bid a Lot of Talking, Sept 12 p 91
Congress Eyes Tax Cut in '58, Aug 8 p 61
Congress Needs a Lot of Courage, Dec 26 p 37
Cordiner Report Comes into Focus, July 4 p 57
Depreciation Study Progresses, Sept 26 p 97
Dam is Closed to Extra Funds, Oct 17 p 99
FRB Keeps Grip on Tight Money, Oct 24 p 183
Get Ready for Price Escalator, Aug 1 p 73
Get Set for 10 Per Missile Hike, Nov 28 p 61
Hard Money Policy Continues, July 18 p 93
Ike Asks for Law Change, Sept 5 p 89
Inflation Getting Close Watch, Sept 12 p 105
It Looks Like a Record Budget, Dec 12 p 111
Labor Unions: Clean up or else, Sept 19 p 121
Labor Wants Probing to End, Aug 29 p 47
Monopoly Report may Fizzle out, July 25 p 89
Standby Controls in Works again, Dec 5 p 113
States Cool to Ike's Proposal, July 11 p 77
Tax-Cut Climate is Improving, Aug 22 p 81
The Outlook for new Labor Laws, Oct 10 p 95
What about a Dept. of Research? Nov 14 p 135
What's Ahead in Missile Probe? Nov 21 p 103
Who'll Develop Atomic Power? Aug 15 p 73
Who'll Hold M-Day Inventory? Oct 31 p 41
Why the U. S. Lags in Education, Dec 19 p 115

Baldwin, A. T. & McMullen, W. H.:
Galvanizing: New Ways for an Old Process, Sept 19 p 150

Barone, M. A.:
Needed: A Merger of Merit Plans, July 25 p 75

Barron, D. B. & W. J. Phillips:
Lead in Cast Steel: How Much Does Machinability Improve? Aug 15 p 102

Bassett, H. W.:
One-Man Furnace Does Five Heat Treating Jobs, Aug 22 p 106

Bennett, K. W.:
A Look Behind Curtain Walls, Oct 24 p 168
Appliance Makers Cut back to Far for Comfort, July 18 p 76
Construction Equipment Makers Hope Worst is over, Aug 15 p 58
Farm Machine Picture Brightens, Dec 5 p 28
How to Cut your Accident Rate, Nov 7 p 84
Imports Hit Oil Country Market, Nov 21 p 90
Look for TV Sport in Last Half, July 4 p 46
Meet the Portable Generator, Aug 22 p 68
Purchasing Agents are Playing it Close to the Vest, Sept 26 p 75
Rush is on for Leased Trucks, Oct 3 p 62
You can Cut Costs Through Tight Inventory Control, Sept 12 p 85

Bertossa, R. C.:
Cladding on Carbon Steel Opens new Fields to Titanium, Oct 31 p 59

Botosan, R. A.:
Three Low-Cost Ways to Mark Metals Permanently, Sept 26 p 122

Brown, Clarence J.:
Government in Business: Costly Threat to Free Enterprise, Nov 28 p 39

Brown, R. G.:
Special Bar Raises Killed Steel Yield, July 4 p 88

Burgan, D. D.:
Are "Custom" Properties into 17-7 PH Castings, Aug 29 p 67

Bykowski, L.:
Scrap Refinery Controls Smoke with Water Scrubber, Aug 15 p 96

C

Campbell, Tom:
Gibsonite Project Opens up Vast Potential, Aug 1 p 54
How you can Build a Market in Venezuela, Nov 21 p 86
Ike's Impact on Business Outlook, Dec 5 p 94
Labor's New Problems They'll Affect your Bargaining, Sept 5 p 67
What to Do when the Tax Man Calls on you, July 18 p 74

Campbell, Tom, see also Editorials

Carr, G. Grant:
Aid to Education: What Industry Can do to Help, Dec 12 p 84
Big Gains in Vacuum Metallurgy, July 4 p 43
1958 Business Still Looks Good, Sept 26 p 82
Diamonds Reflect Industry Pace, Sept 12 p 92
Lithium Climbs out of Obscurity, Oct 10 p 89

Carr, G. G.:
Rebuttal to Aluminum Can Critics, Oct 31 p 24
Why Toyland Leans to Plastics, Dec 19 p 98

Cathey, P. J.:
Cities Rip Metal Trade School Methods, Aug 15 p 56
You Can Help Your Purchaser do a Better Job, Oct 10 p 73

Chappie, Hubert:
Mold Treatment: The Key to Quality Castings, Aug 15 p 98

Chase, Herbert:
Automatic Handling Highlights Hammerless Forging Setup, Oct 10 p 118
Choice of Stock Cuts Scrap Loss, Nov 28 p 90
Gripper Jaws Unload Panels Efficiently, Safely, Dec 12 p 130
How Press and Weld Steps Form Sheet Metal Units, Dec 19 p 140

Cooper, Alfred M.:
How to Pick that Second Man, Sept 5 p 76

Crompton, C. M.:
Radioisotopes: Use them on Tough Problems, Oct 17 p 111

Czygan, William:
New Hot Top Cuts Ingot Discard in Half, Sept 12 p 123
Optical Tooling: Short Cut to Accurate Alignment, Oct 31 p 63
Plastic Ball Bearings Compete with Steel, Oct 10 p 116

D

Daley, R. C.:
Plastisol Linings Enlarge Scope of Plating Operations, Sept 12 p 130

Delanes, J. B.:
Steel Industry Wins First Round, Aug 15 p 54
Why Steel Prices Had to Go up, July 4 p 38

Dillon, J. E.:
Tracer Controls Change a Job Shop's Outlook, Sept 26 p 42

Douglas, William P.:
Welding Speeds Bridge Construction, Oct 10 p 124

Dress, V.:
Vacuum Deposition Avoids Embrittlement, Dec 19 p 142

Drivar, J. R.:
A New Way to Select Wear-Resistant Materials, Nov 21 p 121

E

Egan, Jr., E. J.:
A Good Way to Start a Debate, Aug 22 p 85
Builder Products Fall Sport, Aug 8 p 65
Can you Machine Missile Hardware? Nov 7 p 121
Company Show Draws Prospects, Oct 24 p 187
Defense Dept. Studies Ford Plan, Sept 26 p 101
Distributors Push Sales Drive, Oct 3 p 78
Drive to Educate Public Begins, Dec 12 p 115
German Sales Lose some Steam, Aug 15 p 77
How to Encourage Machine Tools, July 11 p 80
How to Speed up Die Changes, July 25 p 92
If you Use Electronic Controls, Nov 21 p 107
Lease for Cash or Cut Prices? Aug 1 p 57
Make Assembly Part of Design, July 18 p 97
New Guide to Grinding Wheels, Aug 29 p 51
New Look at Future Machining, Oct 10 p 99
New Orders Slump to 7-Year Low, Dec 5 p 117
New Tool Does Job of Three, Nov 28 p 65
Numerical vs. Tracer Controls, Dec 19 p 119
ODM Stiffens Tool Leasing Plan, Oct 17 p 103
Sales of Foreign Tools Climb, Nov 14 p 139
Selling Job Ahead for Builders, Nov 7 p 105
Small Orders Take up the Slack, Sept 12 p 109
Tape Controls Aim at Short Runs, Oct 31 p 45
The Winner: Numerical Controls, Sept 5 p 93
Tough Alloys Stump the Experts, Dec 26 p 41
Trepanning: Faster Holes with Fewer Chips, Aug 15 p 91
Tool Rental Rates Stir Protests, July 4 p 61
Vacuum Lift Speeds Handling of Sheets on Turret Punch Press, Aug 15 p 94

Egerer, H.:
Does Simplified Drafting Really Cut Costs? July 11 p 104

Engler, W. E.:
Interfloor Conveyors Move Unitized Loads Faster, Sept 26 p 119

Eshelman, R. H.:
Automated Line Adjusts Easily to Design Changes, Dec 5 p 141
Building-Block Line Handles Various Shaft Sizes, Nov 28 p 82
Plant Modernization: Money Alone Won't do it, Dec 19 p 153

F

Fairless, Benjamin F.:
Success in Business Takes More than Urge to Get Ahead, July 4 p 34

Frommelt, Horace:
Powdered Metal Tool Bodies Boost Machining Efficiency, Nov 14 p 166

G

Gordon, Edward & Leonard Jaffe:
New Temperability Calculator, Oct 24 p 227

H

Halbig, J. & R. K. Thompson:
Stainless Hopper Cars Stand Long Service, Oct 17 p 118

Hannon, C. H.:
Copper-Base Alloy Compares with Nickel Silver, Nov 21 p 134
How Iron Affects Forgeability of Copper Alloys, Nov 7 p 125

Happel, E. R.:
Better Maintenance Demands a System, Aug 8 p 84

Heath, N. E.:
Special Small-Parts Shop Unties Production Tangle, Oct 10 p 113

Hook, R. T.:
Induction Harden Small Lots for Extra Benefits, Sept 26 p 126

Huppert, P. A.:
Ceramic Coatings Raise Heat Resistance of Super-Alloys, Nov 14 p 157

J

Jaffe, Leonard & Edward Gordon:
New Temperability Calculator, Oct 24 p 227

Janeway, Eliot:
Sputnik Era's Impact on Business, Nov 14 p 118
Why Defense will Spark Economy, Dec 19 p 100

Johnston, L. E.:
Prevent Electrical Failures; it Pays its Own Way, Dec 19 p 157

Jones, Conrad:
Take Six Basic Steps for Better Product Planning, Oct 17 p 86

Johnson, L. L.:
How to Select a Vacuum Arc Furnace, Oct 3 p 96

K

Kay, R. R.:
Aircraft Changes Product Mix, Aug 8 p 63
Aircraft Subcontractors Suffer, Oct 24 p 185
Canada Wants European Funds, Dec 19 p 117
Candidates for a Sales Call, Sept 5 p 91
Coast Steel Buying Will Slide, Dec 26 p 39
Don't Sell the West Coast Short, Nov 14 p 137
Farm Facelift Aids Metal Sales, Nov 7 p 103

Kay, R. R.:
How Air Cutbacks Hurt Seattle, Oct 31 p 43
Know the New Western Markets, July 4 p 59
Lower Ceiling for Aircraft, Aug 15 p 75
Metal Use in Trailers Growing, Oct 10 p 97
More Far Eastern Trade Coming, Oct 3 p 76
Missile Push Aids Electronics, Sept 19 p 123
Missile's End Means Layoffs, July 25 p 91
New Life for Coast Shipyards, July 11 p 78
Plane Cuts Sharpen Competition, Sept 12 p 107
San Francisco Avoids Slowdown, Nov 21 p 105
Seattle Puts Stress on Diversifying, Aug 29 p 39
Shipyards Seek Non-Marine Jobs, Dec 12 p 113
Steel Shares Natural Gas Boom, Sept 26 p 99
West Plans for Steel Upsurge, Dec 5 p 115
Western Research Aids Metals, July 18 p 95
West is Economically Robust, Aug 22 p 83

Kay, R. R.:
What's Ahead in Plane-making, Oct 17 p 101

L

Lackey, M. E. & F. L. Spangler:
Strengthen Powdered Iron Parts with Steam, Aug 1 p 98

Lane, J. R. & Paul Shahinian:
Higher Vanadium Improves Hot Strength of Low Alloy Steel, Aug 1 p 91

LaPelle, R. R.:
New Furnaces Treat Giant Forgings and Extrusions, July 11 p 106

Lawrence, Floyd:
Why Companies Move to Florida, Dec 19 p 96

LeFevre, K. G. & S. J. Oechsle, Jr.:
For Coatings That Last, Get Base Metals Clean, July 11 p 95

M

Mansfield, Herman:
How Defects Affect Tensile Strength of Light Alloy Castings, July 4 p 75
How to Check Quality in Ferritic Nodular Iron, Aug 8 p 88

Martin, J. E.:
Diversification: Is it Always the Answer? Oct 3 p 53

McGarvey, H. J. & G. P. McKnight:
Soldering: Automation Breeds New Problems, Aug 15 p 103

McKnight, G. P. & H. J. McGarvey:
Soldering: Automation Breeds New Problems, Aug 15 p 103

McManus, G. J.:
Avery Adams Makes his Move, July 25 p 72
Can Aluminum Hit Car Market? Oct 10 p 76
How Indiana SUB Plan Works, Oct 24 p 170
Hurdling the Export Barriers, Oct 3 p 56
Memo to Management: Traffic Planning Can Cut Costs, July 11 p 55
Mills Expand Capacity to Fill Growing Tinplate Needs, July 18 p 74
Mills Use More Hot Metal in Steelmaking, Nov 21 p 88
Pre-Planning Benefits New Mill, Dec 26 p 22
Steel Expansion Plans Stress Economy as Costs Mount, Sept 19 p 99
Steel Heading into Fall Upturn, Sept 12 p 86
Steel Takes its Case to Congress, Aug 1 p 56
To Improve Quality, Mills Push Automatic Controls, Aug 1 p 51
U. S. Road Program Gains Speed, Nov 28 p 43
Why Southern Mills are Hurting, Nov 14 p 121
Will Titanium Beat Setbacks? Sept 5 p 71

McMullen, W. H. & A. T. Baldwin:
Galvanizing: New Ways for an Old Process, Sept 19 p 150

N

Neal, H. R.:
A Look at the '58 Chrysler Line, Oct 3 p 70
Are Auto Tail Fins Functional? Sept 19 p 116
Automakers Top Metal Buyers, Sept 26 p 92
Behind Creation of Ford's Edsel, Oct 3 p 60
Behind GM's Foreign Car Plans, July 4 p 52
Coming Changes in Truck Design, Nov 14 p 130
Ford Water Paint Aids Safety, July 25 p 84
Foreign Car Dent U. S. Market, Nov 28 p 56
How a Car Uses its Horsepower, Aug 22 p 56
How Engineers Cut Auto Noises, Aug 1 p 67
How Ford Guards Auto Secrets, Nov 21 p 98
Is New Car Quality Slipping? Aug 15 p 68
Labor Unrest Spreads in Detroit, Dec 5 p 108
Limit near for Low Silhouettes, Oct 24 p 178
Small Company Tackles Big Job, July 11 p 72
The New Edsel: But Will it Sell? Aug 29 p 42
Unit Body Strengthens Lincoln, Oct 31 p 36
Unsafe Cars are Growing Menace, Sept 5 p 84
Why GM Has Rear Window Blues, July 18 p 88
Why Lincoln Located at Wixom, Sept 12 p 100
Why the Auto Industry Stays Big, Dec 19 p 110
Will Detroit Buy a Safety Car? Nov 7 p 96
Will Economy Sell Better in '58? Oct 10 p 90
Will Electric Cars Come Back? Dec 26 p 32
Will Reuther Barter Short Week? Aug 8 p 56
"X" Frame a Break for Designers, Dec 12 p 106
1958 Year of Decision for AMC, Oct 17 p 94

O

Oechsle, Jr., S. J. & K. G. LeFevre:
For Coatings That Last, Get Base Metals Clean, July 11 p 95

P

Palen, V. W.:
Speed Alloy Analysis by X-Ray Method, Oct 17 p 120

Patton, W. G.:
Continuous Press Line Marks Big Advance in Forming, July 18 p 111
Get Better Finishes for Less with Hot Paint Spray, Aug 1 p 104
Integrated Line Hikes Diecasting Output, July 4 p 86

Phillips, W. J. & D. B. Barron:
Lead in Cast Steel: How Much Does Machinability Improve? Aug 15 p 102

Plimpton, Jr., F. T. P.:
Oscillating Shear Cuts Angles in Coil Stock, July 4 p 78

R

Raddant, R. D.:
Pressure Eases on Fabricators, July 25 p 69

Rau, J. A.:
Surfacing with Stainless Prevents Pit Corrosion, July 18 p 120

Regeimbal, N. R.:
Can we Recoup on Missiles? Oct 17 p 74
Everybody Talks About it, July 4 p 42
Probe Launches Defense Speedup, Dec 5 p 97
Stockpile Spending Fading away, Sept 26 p 81
Why U. S. Lags in Missile Race, Oct 24 p 166

Reid, Jr., H. F.:
Tips on Welding Stainless, Dec 26 p 58

Richards, W. N. & R. B. Sinclair:
How to Cut Costs on Patterns and Cores, Dec 12 p 132

Riddle, C. J.:
Two Tanks do Work of Ten in Surface Treatment, Aug 22 p 104

Robbins, B. H.:
How to Dispose of Cyanide Plating Wastes, Nov 28 p 92

Rohan, T. M.:
A Lake Port Gets Set for the St. Lawrence Seaway, Aug 22 p 59
Bearing Plant Design Pays off, Sept 19 p 107
Business Booms for Production Warehouses, Nov 28 p 44
Business is Good, but Linepipe Market Develops Leaks, Dec 19 p 91
Continuous Shot Blast Treats Coil Stock, Aug 8 p 92
Diversity no Problem to Large Job Shop, Dec 5 p 140
Labor's Next Five-Year Plan, Oct 10 p 82
Ore Surplus Indicated for 1958, Dec 26 p 24
Supersonic Speeds Need Steel, July 25 p 70
Unique Program Sells more Pipe, Sept 26 p 80

S

Sandmaier, P. J.:
How Smaller Firms Can Make Sales Forecasts, Oct 31 p 21

Schulin, R. O.:
How Hard will Missile Spending Hit Industry? Nov 21 p 81
Machine Tool Layaway Program, July 11 p 60
Railroads Look over New Passenger Car Advances, Aug 29 p 39

Schwartzbart, Harry:
How to Braze Titanium, Aug p 100

Scott, E. K.:
Shortcut to Long Runs: Heavy Duty Steel Rule Dies, July 4 p 80

Setapen, A. M.:
Paste Filler Metal Gives Dip Brazing a Boost, Sept 12 p 136

Shahinian, Paul & J. R. Lane:
Higher Vanadium Improves Hot Strength of Low Alloy Steel, Aug 1 p 91

Sinclair, R. B. & W. N. Richards:
How to Cut Costs on Patterns and Cores, Dec 12 p 132

Smith, J. B.:
Prevent Lighting-Off Explosions with Safety Controls, Nov 7 p 134

Spangler, F. L. & M. E. Lackey:
Strengthen Powdered Iron Parts with Steam, Aug 1 p 98

Stahl, Gerold:
How Good Packaging Can Help Sell your Product, Aug 8 p 39

Starin, F. J.:
Aluminum Woos Shipbuilders, Dec 12 p 88
Metal Wall Construction Wins Building Code Recognition, July 25 p 67
Nickel Outlook Good; Signs Point to End of Famine, Aug 15 p 51

Stockbower, E. A. & A. E. Uhleen:
Vertical Expansion Raises Treatment Rate, July 18 p 111

Storchheim, Samuel:
How to Get Stronger AL-Fe Bonds, Dec 5 p 136

Strasser, Federico:
How to Remedy Defects in Drawn Shells, Nov 21 p 125
Press-Form Metal Tubing with Simple Dies, Dec 12 p 127

Sullivan, G. E.:
Iron Project Rolls Back North Frontier, Oct 31 p 28

T

Thompson, R. K. & J. Halbig:
Stainless Hopper Cars Stand Long Service, Oct 17 p 118

U

Uhleen, A. E. & E. A. Stockbower:
Vertical Expansion Raises Treatment Rate, July 18 p 111

Unterweiser, P. M.:
Boron Rids Steels of Stretcher Strains, Aug 8 p 79
Electronic Signaller Reduces Quench-Cracking of Steels, Nov 28 p 59
Forgeability Tests: Are the Results Reliable? Nov 14 p 153
Meteorites: Metallurgy from Outer Space, Dec 5 p 131
New Theory Bolsters Grinding Research, Sept 12 p 127
Steelmaking Plans for Tomorrow, Sept 19 p 139

Underwood, Carl:
How to Make Oxygen Cutting do More Jobs, Aug 29 p 63

W

Willsey, B. A.:
How much Automation can Small Plants Afford? Sept 26 p 115

Winkler, A. L.:
Milling Titanium Alloys: Experience Modifies Thinking, Oct 10 p 126

The IRON AGE A CHILTON PUBLICATION

Chestnut and 56th Sts., Philadelphia 39, Pa.

Printed in U.S.A.